

Preliminary price list of GASCADE Gastransport GmbH for the use of the national Gas Pipeline Network

for shippers and network operators for the use as of January 1st 2019

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The tariffs for the use of the national Gas Pipeline Network of GASCADE Gas Transport GmbH (hereinafter referred to as "GASCADE") in this price list already include the costs of construction and operation of a capacity platform.

The definitions of the General Terms & Conditions for Entry/Exit Contracts of GASCADE in the relevant version (hereinafter referred to as "GTC") shall apply.

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for the use as of January 1st, 2019



I. Tariffs

I.1. Tariffs for standard annual capacities

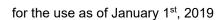
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- specific tariff for firm and free assignable Capacities in accordance with section 9 (1) lit. a,
 b, c, d GTC at entry and exit points with a booking period of 365 coherent days resp. 366 coherent days in a leap year and
- the tariff for the actual internal order of downstream network operators in accordance with section 18 of the "Kooperationsvereinbarung zwischen den Betreibern von in Deutschland gelegenen Gasversorgungsnetzen" in the relevant version (hereinafter referred to as "KoV")

arise from the following table:

Tariffs for standard annual Capacities in GASPOOL market area						
(Firm and free assignable capacities with a booking period of a coherent year)						
Grid points	Grid point- ID	Flow direction	Type of grid point	EUR/(kWh/h)/ a		
Zone OGE	11C+	Entry	Entry zone – interconnection point	2.64		
Bunde	1632	Entry	Interconnection point - international	2.64		
Jemgum I	1BMA	Entry	Storage	1.32		
Jemgum III	1BRA	Entry	Storage	1.32		
Nüttermoor	1BQA	Entry	Storage	1.32		
Gernsheim	1ULA	Entry	Interconnection point - transmission system operator	2.64		
Frankenthal Nord	1VCA	Entry	Interconnection point - distribution system operator	2.64		
Brandov- STEGAL	2731	Entry	Interconnection point - international	2.64		
VIP Bradov- GASPOOL	273+	Entry	VIP; Interconnection point - international	4.31		
Sp. Rehden	3070	Entry	Storage	1.32		
Mallnow	6800	Entry	Interconnection point - international	2.64		
Nonnendorf	6BUA	Entry	Biogas	0.00		
Bobbau	6CZA	Entry	Storage	1.32		
Fuchswinkel	7DHA	Entry	Biogas	0.00		
Eynatten	8950	Entry	Interconnection point - international	2.64		
BGEA Wörth	OCFD	Entry	Biogas	0.00		
Drohne NOWAL	94AZA	Entry	Interconnection point - transmission system operator	2.64		
Ronneburg OGE	2ERB	Entry	Interconnection point - transmission system operator	2.64		
Vitzeroda		Entry	Interconnection point - transmission system operator	*)		

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Grid points	Grid point- ID	Flow direction	Type of grid point	EUR/(kWh/h)/a
Ostpfalz	01A+	Exit	Exit zone	2.64
TW Ludwigsha- fen	0AAA	Exit	Interconnection point - distribution system operator	2.64
Wörth	0CF+	Exit	Exit zone	2.64
Karlsruhe- Maxau	0CFC	Exit	End consumer	2.64
RMN	11A+	Exit	Exit zone	2.64
Hameln	11B+	Exit	Exit zone	2.64
Zone OGE	11C+	Exit	Exit zone	2.64
Bunde	1632	Exit	Interconnection point - international	2.64
Jemgum I	1BMA	Exit	Storage	1.32
Jemgum III	1BRA	Exit	Storage	1.32
Jemgum IV	1BMB	Exit	End consumer	2.64
Nüttermoor	1BQA	Exit	Storage	1.32
SW Bünde	1FZA	Exit	Interconnection point -	2.64
orr Barras	, .		distribution system operator	0.04
SW Lemgo	1GZA	Exit	Interconnection point - distribution system operator	2.64
			Interconnection point -	2.64
Warburg I	1IMA	Exit	distribution system operator	2.04
0	41.1.4	F. 44	Interconnection point -	2.64
Großenritte	1LLA	Exit	distribution system operator	
Baunatal	1LMA	Exit	End consumer	2.64
Malsfeld- Ostheim	1LZA	Exit	Interconnection point - distribution system operator	2.64
SW Hünfeld	1NFA	Exit	Interconnection point - distribution system operator	2.64
Reckrod II	1NLA	Exit	Interconnection point - distribution system operator	2.64
Wirtheim	1RZA	Exit	Interconnection point - distribution system operator	2.64
Jügesheim II	1SEA	Exit	Interconnection point - distribution system operator	2.64
Gernsheim	1ULA	Exit	Interconnection point - transmission system operator	2.64
GGEW Bens- heim	1UXB	Exit	Interconnection point - distribution system operator	2.64
SW Weinheim	1UZB	Exit	Interconnection point - distribution system operator	2.64
Worms Süd	1VCD	Exit	Interconnection point - distribution system operator	2.64
Mörsch-West	1VCF	Exit	Interconnection point - distribution system operator	2.64
Lampertheim IV	1VLA	Exit	Interconnection point - transmission system operator	2.64
SW Lampert- heim	1VNA	Exit	Interconnection point - distribution system operator	2.64
Mannheim I	1VTA	Exit	End consumer	2.64
Mannheim II	1VTB	Exit	End consumer	2.64
Ludwigshafen	1VZA	Exit	End consumer	2.64
Suedsachsen	22A+	Exit	Exit zone	2.64
Olbernhau II	2730	Exit	Interconnection point - international	2.64

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Grid points	Grid point- ID	Flow direction	Type of grid point	EUR/(kWh/h)/a
VIP Bradov- GASPOOL	273+	Exit	VIP; Interconnection point - International	2.81
SW Marienberg	2BZA	Exit	Interconnection point - distribution system operator	2.64
Chemnitz-Stel- zendorf	2CXA	Exit	End consumer	2.64
SW Crimmit- schau	2EEA	Exit	Interconnection point - distribution system operator	2.64
SW Werdau	2EFA	Exit	Interconnection point - distribution system operator	2.64
Ronneburg	2ERA	Exit	Interconnection point - distribution system operator	2.64
Gera-Gorlitzsch- berg	2EZA	Exit	Interconnection point - distribution system operator	2.64
Stadtroda II	2FZA	Exit	Interconnection point - distribution system operator	2.64
Wölfershausen	2LXL	Exit	Interconnection point - distribution system operator	2.64
Sp. Rehden	3070	Exit	Storage	1.32
Glauchau	52A+	Exit	Exit zone	2.64
Altenburg	55A+	Exit	Exit zone	2.64
SW Meerane	5AKA	Exit	Interconnection point - distribution system operator	2.64
Mallnow	6800	Exit	Interconnection point - international	2.64
Kienbaum	6AQA	Exit	Interconnection point - transmission system operator	2.64
Bobbau	6CZA	Exit	Storage	1.32
Rotenburg-Boe- tersen	7CZA	Exit	Interconnection point - distribution system operator	2.64
Heidenau SH	7FRA	Exit	Interconnection point - distribution system operator	2.64
Heidenau HH	7GZA	Exit	Interconnection point - distribution system operator	2.64
Lippstadt	88A+	Exit	Exit zone	2.64
Monheim	88B+	Exit	Exit zone	2.64
Eynatten	8950	Exit	Interconnection point - international	2.64
Hillegossen	8AFA	Exit	End consumer	2.64
Bielefeld (KOWI)	8AFC	Exit	End consumer	2.64
Gütersloh-Verl	8AZA	Exit	Interconnection point - distribution system operator	2.64
SW Soest	8CLA	Exit	Interconnection point - distribution system operator	2.64
Hagen-Boele	8ERB	Exit	End consumer	2.64
Herdecke	8EU+	Exit	Exit zone	2.64
Wuppertal-Ho- henhagen	8FZA	Exit	Interconnection point - distribution system operator	2.64
Rath	8GWA	Exit	End consumer	2.64
Ratingen	8GWB	Exit	Interconnection point - distribution system operator	2.64
Uerdingen	8GZA	Exit	Interconnection point - distribution system operator	2.64
Leverkusen	8IRB	Exit	Interconnection point - distribution system operator	2.64

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Grid points	Grid point- ID	Flow direction	Type of grid point	EUR/(kWh/h)/a
Neuss	8IZB	Exit	End consumer	2.64
Dormagen Chempark H	881+	Exit	Exit zone	2.64
Köln-Merkenich II	8IRD	Exit	End consumer	2.64
Frechen	8KLA	Exit	End consumer	2.64
Kalscheuren	8KLC	Exit	End consumer	2.64
Wesseling I	8KLD	Exit	End consumer	2.64
Hürth	8KLE	Exit	End consumer	2.64
Wesseling II	8KLF	Exit	End consumer	2.64
Frechen-Rhein- Erft	8KLG	Exit	End consumer	2.64
Godorf	8KLH	Exit	End consumer	2.64
Weisweiler	8MLA	Exit	End consumer	2.64
Dürwiß	8MTA	Exit	Interconnection point - distribution system operator	2.64
Broichweiden Süd	8MVA	Exit	Interconnection point - transmission system operator	2.64
Aachen (Deby- estr.)	8MXA	Exit	Interconnection point - distribution system operator	2.64
Drohne NOWAL	94AZA	Exit	Interconnection point - transmission system operator	2.64
Ronneburg OGE	2ERB	Exit	Interconnection point - transmission system operator	2.64
Vitzeroda		Exit	Interconnection point - transmission system operator	*)

^{*} The point Vitzeroda (EIC: 37Z000000007164W) is owned by Ferngas Netzgesellschaft mbH and marketed by TSO GASCADE Gastransport GmbH. The current Tariff will be published by Ferngas Netzgesellschaft mbH.

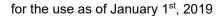
Additional to the tariffs at some grid points fees for measuring, invoicing and operation of measuring stations in accordance with section II, the specific biogas levy in accordance with section III and the market area conversion levy in accordance with section IV will be charged.

I.2. Tariffs for storage

In accordance with (2) lit. d of the guidelines of the Bundesnetzagentur regarding the pricing of entry and exit capacities (Bepreisung von Ein- und Ausspeisekapazitäten", hereinafter referred to as "BEATE") of 24.03.2015 (BK9-14/608), tariffs for capacities at storages should principally get a discount of 50%, based on the tariff determined by GasNEV. The tariffs for storages, shown under section I.1., includes already the 50 % tariff discount for storages.

Notwithstanding the above, storages allowing access to more than one market area or a neighboring country are treated different. In pursuance of BEATE, GASCADE Gastranport GmbH is obgligated to designate a non-discounted tariff for these storages.

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Only if the particular storage operator complies with the conditions stated in (IX) No. 8 of the reasoning of BEATE towards GASCADE Gastransport GmbH, GASCADE Gastransport GmbH is obligated to designate a discounted tariff.

Pursuant to the guidelines of BEATE ((IX) Nr. 8 of the reasoning) the discounted tariff (50% discount) will be offered under the following conditions:

- there is a valid contract between GASCADE Gastransport GmbH and the particular storage operator
- the storage operator complies with the regulations of this contract
- the storage operator proves the compliance with these regulations towards GASCADE
 Gastransport GmbH pursuant to the guidelines of BEATE

If one or more conditions stated above are not being fulfilled during the year 2018, GASCADE Gastransport GmbH is obligated to offer only a non-discounted tariff at the affected grid point.

The discounted and non-discounted tariffs for the affected grid points are:

Grid point	Grid point-ID	Flow direction	EUR/(kWh/h)/a discounted	EUR/(kWh/h)/a non-discounted
Jemgum I	1BMA	Entry	1.32	2.64
Jemgum III	1BRA	Entry	1.32	2.64
Jemgum I	1BMA	Exit	1.32	2.64
Jemgum III	1BRA	Exit	1.32	2.64

The "Ausbuchungskomponente" for the grid points Jemgum I and Jemgum III has an amount of 1.452 EUR/(kWh/h)/a in accordance with BEATE (IX No 5 c).

The "Einbuchungskomponente" for the grid points Jemgum I and Jemgum III has an amount of 1.452 EUR/(kWh/h)/a in accordance with BEATE (IX No 5 c).

I.3. Tariffs for interruptible capacities

The tariff for interruptible capacities in accordance with section 9 (1) GTC amounts to 90% of the tariff for firm capacity as per section I.1. This does also apply for interruptible internal order in accordance with section 11 (8) KoV.

Deviating from sentence 1, the tariff for interruptible capacities in accordance with 9 (1) GTC amounts, at the following grid connection points, to 89% of the tariff for firm capacity as per section I.1.:

Entry Point: Mallnow (6800)

Exit Point: Bunde (1632), Lampertheim IV (1VLA), Eynatten (8950)

At the following grid points interruptible capacity is bookable as reverse flow in accordance with section 9 (4) GTC:

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Grid points	Grid point-ID	Flow direction	Type of grid point	EUR/(kWh/h)/a
Lampertheim	1VLA	Entry	Interconnection point -	2.64
IV	IVLA	Litti y	Transmission system operator	
Kienbaum	6AQA	Entry	Interconnection point -	2.64
	0/10/1	Littiy	Transmission system operator	
Broichwei-	8MVA	Entry	Interconnection point -	2.64
den Süd	OIVI V7 C	Littry	Transmission system operator	
Olbernhau II	2730	Entry	Interconnection point -	2.64
Olbertinau II	2100	Litti y	international	

The tariff amounts to 90% in the table mentioned tariff for firm capacity which cannot be offered at these grid points.

I.4. Tariffs for dynamically assignable capacities

The tariff for dynamically assignable capacities in accordance with section 1 of the supplementary Terms & Conditions of GASCADE (Appendix GTC 3) amounts to 90% of the tariff for firm capacity as per section I.1. Dynamically assignable capacities will be published separately.

At the following grid point dynamically assignable capacity is bookable as reserve flow in accordance with section 9 (4) GTC:

Grid points	Grid point-ID	Flow direction	Type of grid point	EUR/(kWh/h)/a
Kienbaum	6000	Entry	Interconnection point -	2.64
Menbaum	6AQA	Entry	transmission system operator	2.04

The tariff amounts to 90% in the table mentioned tariff for firm capacity.

I.5. Tariffs for dynamically assignable capacities for power plants

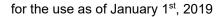
The tariff for dynamically assignable capacities for power plants in accordance with section 2 Appendix GTC 3 amounts to 90% of the tariff for firm capacity as per section I.1. Dynamically assignable capacities for power plants will be published separately.

I.6. Tariffs for capacity with term of less than a year and within day

The tariff for firm and free assignable capacities in accordance with section I.1 – I.4 with terms of less than year derives from the multiplication of the tariffs for standard annual capacities as per section I.1 – I.4 with a proportional volume of $\frac{1}{365}$ for every booked day resp. $\frac{1}{366}$ for every booked day in a leap year.

The proportional value, as resulting pursuant to sentence 1, must be multiplied in accordance with the guidelines of BEATE with the following multipliers, depending on the run-time of the booked capacity:

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Run-time in days	Multiplier	
1 to 27	daily product	1.4
28 to 89	monthly product	1.25
90 to 364	quarterly product	1.1

For firm within day capacity in accordance with section 9 (2) GTC the respective daily tariff shall apply. For interruptible within day capacity from over-nomination the respective daily tariff for interruptible capacity shall be charged in accordance with section 13d (4).

The tariff for interruptible internal orders, especially in case of adjustments in accordance with section 15 KoV, is calculated in the same way as described above.

I.7. Capacity overrun

If a customer exceeds the ordered capacity in an hour of a day, a contractual penalty in accordance with. Section 30 (4) of the GTC will be charged. This contractual penalty amounts to the fourfold of the regular tariff for the respective day at the affected grid point, as it is shown in this price list.

I.8. Exceeding of internal order

If a network operator exceeds the ordered capacity in an hour of a day, the exceeding will be charged in accordance with section 18 section (6) KoV. The provisions as per section 18 (7) KoV remain unaffected. This contractual penalty in accordance with section 18 (7) amounts to the fourfold of the regular tariff for the respective day at the affected grid point, as it is shown in this price list.

II. Tariffs for measuring and operation of measuring stations

Costs for measuring and operating of the measuring station according to § 15 Abs. 7 GasNEV will be charged at the following exit points:

Grid points	Grid point-ID	Flow direction	Costs for measuring EUR/(kWh/h)/a	Costs for measuring and operating of the measuring station EUR/(kWh/h)/a
Wörth	0CFA	Exit	0.02630	0.02994
Karlsruhe-Maxau	0CFC	Exit	0.02630	_*
RMN	11A+	Exit	0.02630	0.02994
Bunde	1632	Exit	0.02630	0.02994
Baunatal	1LMA	Exit	0.02630	_*
Zone OGE	11C+	Exit	0.02630	0.02994
SW Weinheim	1UZB	Exit	0.02630	0.02994
Worms Süd	1VCD	Exit	0.02630	0.02994
Mannheim I	1VTA	Exit	0.02630	0.02994

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Grid points	Grid point-ID	Flow direction	Costs for measuring EUR/(kWh/h)/a	Costs for measuring and operating of the measuring station EUR/(kWh/h)/a
Mannheim II	1VTB	Exit	0.02630	_*
Ludwigshafen	1VZA	Exit	0.02630	_*
Olbernhau II	2730	Exit	0.02630	0.02994
Ronneburg	2ERA	Exit	0.02630	0.02994
Mallnow	6800	Exit	0.02630	0.02994
Hillegossen	8AFA	Exit	0.02630	0.02994
Hagen-Kabel	8ERA	Exit	0.02630	_*
Hagen-Boele	8ERB	Exit	0.02630	_*
Herdecke	8EUA	Exit	0.02630	_*
Rath	8GWA	Exit	0.02630	_*
Neuss	8IZB	Exit	0.02630	_*
Frechen	8KLA	Exit	0.02630	_*
Kalscheuren	8KLC	Exit	0.02630	_*
Wesseling I	8KLD	Exit	0.02630	_*
Hürth	8KLE	Exit	0.02630	_*
Wesseling II	8KLF	Exit	0.02630	_*
Frechen-Rhein-Erft	8KLG	Exit	0.02630	_*
Godorf	8KLH	Exit	0.02630	_*
Broichweiden Süd	8MVA	Exit	0.02630	0.02994
Drohne NOWAL	94AZA	Exit	0.02630	0.02994

^{*)} At these Grid points the measuring stations aren't owned by GASCADE. If the measuring service is provided at these grid points by GASCADE, the actual expenses will be charged directly to the owner of the measuring station.

III. Biogas levy

The specific biogas levy to be paid in addition to the tariffs amounts to 0.66193 EUR/(kWh/h)/a in 2019. It is charged for grid connection points to end-consumers as well as to grid interconnection points to downstream network operators. The Biogas levy for the year 2020 will be published compliant with section 7 (7) a) or section 10 (7) a) of the Cooperation Agreement between the Operators of Gas Supply Networks in Germany as of 29 March 2018, respectively, no later than 1 October 2019. This procedure complies with the requirements of NC TAR in conjunction with the decision BK9-17 / 609 ("INKA").

IV. Market area conversion levy

The specific market area conversion levy in Germany, to be paid in addition to the tariffs, amounts to 0.3181 EUR/(kWh/h)/a in 2019. It is charged to all exit points. The Market area conversion levy for the year 2020 will be published compliant with section 10 (7) a) of the Cooperation Agreement

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between the Operators of Gas Supply Networks in Germany as of 29 March 2018, respectively, no later than 1 October 2019. This procedure complies with the requirements of NC TAR in conjunction with the decision BK9-17 / 609 ("INKA").

V. Fee for Nomination Replacement Procedure

GASCADE shall bill the following fees for the nomination replacement procedure according section 6 Appendix GTC 2.

V.1 Set-Up Fee

The <u>set-up fee</u> for the nomination replacement procedure pursuant to section 6 (6) of Appendix GTC 2 shall, irrespective of use, be **2,000.00 euros** for each balancing group (or sub-balancing group) into which the capacity for executing the nomination replacement procedure is incorporated in accordance with section 6 (2) Appendix GTC 2. GASCADE shall onetime invoice the <u>set-up fee</u> for the first gas business year together with the first monthly fee in accordance with V.2.

V.2 Monthly Fee

The monthly fee for the nomination replacement procedure pursuant to section 6 (6) Appendix GTC 2 shall, irrespective of use, be **2,500.00 euros** for each network point in the balancing group (or sub-balancing group), with the exception of the network point for the flexibly controllable source pursuant to section 6 (4) of Appendix GTC 2, into which the capacity for executing the nomination replacement procedure is incorporated in accordance with section 6 (2) Appendix GTC 2. GASCADE shall bill the monthly fee with effect from the 1st of each month.

This document is a convenience translation of the German original. In case of discrepancy between the English and the German versions, the German version shall prevail.

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