

Application of transportation markups and markdowns

Under the administrative ruling on gas balancing issued by the German federal regulator Bundesnetzagentur (the “Federal Network Agency”; ref: BK7-14-020, so-called “GaBi Gas 2.0” decision) and the Balancing Group Contract Terms & Conditions (Appendix 4 to the Cooperation Agreement), any transportation costs incurred by the market area manager in purchasing or selling gas for system balancing purposes using products that fall within merit order rank 2 must be taken into account. Where gas is purchased (SystemBuy transactions) or sold (SystemSell transactions) on the exchange in adjacent market areas, the resulting transportation markups and markdowns are factored in when calculating the positive and negative daily energy imbalance prices.

Please note: The calculation methodology for transportation markups and markdowns described below applies to delivery periods starting on or after 1 October 2021.

Calculation and application of transportation markups and markdowns

- Separate transportation markups and markdowns are calculated for SystemBuy and SystemSell balancing transactions, respectively, based on the actual utilisation period.
- For SystemBuy transactions a transportation markup is applied and for SystemSell transactions a transportation markdown, with the relevant markup or markdown being added to or deducted from the price payable in respect of the relevant exchange trade.
- The applicable transportation markups and markdowns are published for each delivery month and utilisation period on the market area manager’s website.

$$\text{transportation markup/markdown} = \frac{\text{transportation tariff (EUR/MWh/h)}}{\text{utilisation period (h)}}$$

- Calculation of the transportation tariff:
 - The calculations are based on the capacity tariffs for within-day respectively day-ahead capacity products (daily tariffs) as applicable on the Dutch and German¹ sides of the cross-border interconnection points available to the market area manager for transportation purposes.
 - On both the German and Dutch sides of the relevant cross-border interconnection points, the applicable within-day respectively day-ahead tariffs are prorated to reflect the actual utilisation period.
 - The formula is as follows:

$$\text{transportation tariff} = \left(\frac{\text{tariff THE (EUR/MWh/h/d)} + \text{tariff THE (EUR/MWh/h/d)}}{24 h} \right) * \text{utilisation period (h)}$$

¹ According to the “MARGIT” and “BEATE 2.0” decisions issued by the Federal Network Agency the following multipliers apply to capacity bookings on the German side from 1 January 2020: 2.0 for within-day and 1.4 for day-ahead capacity bookings.

Example # 1 (for within-day capacity bookings)

Calculation for determining utilisation periods and transportation markups for the direction SystemBuy for the month October 2021:

Calculation of utilisation period:

- SystemBuy transaction is effected at 07:15 (**within-day**)
- Delivery is to commence at 11:00
- Gas is to be transported from 11:00 to 06:00 = utilisation period of 19h

Calculation of applicable transportation markup:

Transportation tariff THE:

- Annual entry capacity tariff according to TSO's price sheet²: 3.80 EUR/kWh/h/y
- Within-day entry tariff (Germany)³ = 3,800 EUR/MWh/h/y * 2.0 / 365 days = 20.8219 EUR/MWh/h/d
- The charges payable on the German side of the border depend on the actual duration of utilisation.

Transportation tariff GTS:

- Within-day exit tariff (Netherlands) according to GTS price sheet = 0.00035870 EUR/kWh/h/h⁴
- Within-day exit tariff (Netherlands) = 8.6088 EUR/MWh/h/d
- The charges payable on the Dutch side of the border depend on the actual duration of utilisation.

$$\rightarrow \text{Transportation tariff} = (20.8219 \text{ EUR/MWh/h/d} + 8.6088 \text{ EUR/MWh/h/d}) / 24 \text{h} * 19 \text{h} \\ \approx 23.2993 \text{ EUR/MWh/h/utilisation period}$$

$$\rightarrow \text{Transportation markup} = 23.2993 \text{ EUR/MWh/h/utilisation period} / 19 \text{h} \approx \mathbf{1.2263 \text{ EUR/MWh}}$$

When gas is purchased (SystemBuy) in the adjacent market area for balancing purposes on a within-day basis, the markup of 1.2263 EUR/MWh is added to the price payable in respect of the relevant exchange transaction and is thus taken into account in determining the applicable imbalance price. The markup determined for each utilisation period (duration) remains unchanged unless and until the corresponding within-day capacity tariffs change.

² Valid as of 1 October 2021.

³ In this calculation the price multipliers for within-day capacity bookings determined in the administrative ruling on transmission capacity tariffs issued by the Federal Network Agency (so-called "BEATE" decision) must be factored in.

⁴ Valid for the month October 2021.

Example # 2 (for day-ahead capacity bookings)

Calculation for determining utilisation periods and transportation markups for the direction SystemBuy for the month October 2021:

Calculation of utilisation period:

- SystemBuy transaction is effected at 4:15pm (**day-ahead**)
- Delivery is to commence at 06:00
- Gas is to be transported from 06:00 to 06:00 = utilisation period of 24h

Calculation of applicable transportation markup:

Transportation tariff THE:

- Annual entry capacity tariff according to TSO's price sheet⁵: 3.80 EUR/kWh/h/y
- Day-ahead entry tariff (Germany)⁶ = 3,800 EUR/MWh/h/y * 1.4 / 365 days = 14.5753 EUR/MWh/h/d
- The charges payable on the German side of the border depend on the actual duration of utilisation.

Transportation tariff GTS:

- Day-ahead exit tariff (Netherlands) according to GTS price sheet = 0.00860848 EUR/kWh/h/d⁷
- Day-ahead exit tariff (Netherlands) = 8.60848 EUR/MWh/h/d
- The charges payable on the Dutch side of the border depend on the actual duration of utilisation.

➔ Transportation tariff = $(14.5753 \text{ EUR/MWh/h/d} + 8.60848 \text{ EUR/MWh/h/d}) / 24\text{h} * 24\text{h}$
 $\approx 23.18378 \text{ EUR/MWh/h/utilisation period}$

➔ Transportation markup = $23.18378 \text{ EUR/MWh/h/utilisation period}/24\text{h} \approx \mathbf{0.9660 \text{ EUR/MWh}}$

When gas is purchased (SystemBuy) in the adjacent market area for balancing purposes on a day-ahead basis, the markup of 0.9660 EUR/MWh is added to the price payable in respect of the relevant exchange transaction and is thus taken into account in determining the applicable imbalance price. The markup determined for each utilisation period (duration) remains unchanged unless and until the corresponding day-ahead capacity tariffs change.

⁵ Valid as of 1 October 2021.

⁶ In this calculation the price multipliers for within-day capacity bookings determined in the administrative ruling on transmission capacity tariffs issued by the Federal Network Agency (so-called "BEATE" decision) must be factored in.

⁷ Valid for the month October 2021.