
Process description for MBI use and capacity buy-back transactions

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1 Introduction

Pursuant to operative part 6(d) of the Federal Network Agency's decision BK7-23-043 on the recognition of instruments to increase capacity (*ANIKA – Anerkennung von Instrumenten zur Kapazitätserhöhung*), the gas transmission system operators (TSOs) are required to publish a comprehensive process description along with detailed information on the product characteristics of the deployed market-based instruments (MBIs) within the meaning of operative part 3(b) and the capacity buy-back (CBB) within the meaning of operative part 3(c). With this document, the TSOs are complying with this obligation.

2 Process description for MBI use and capacity buy-back

2.1 Overview

Any physical congestion in the Trading Hub Europe (THE) market area caused by an increase in firm, freely allocable capacities offered by gas TSOs in accordance with operative part 1 of the ANIKA decision can be eliminated using MBIs and CBB transactions in two ‘areas’:

- Upstream area (‘upstream of the congestion’): This area is oversupplied.
- Downstream area (‘downstream of the congestion’): This area is undersupplied.

In contrast to balancing actions, which are taken to balance out volume imbalances, the focus here is on managing a network capacity congestion, which can currently only occur in H-gas.

Figure 1 provides an overview of the process applied by the TSOs and THE, the market area manager (MAM), starting with the identification of a network capacity congestion and ending with its elimination. The individual process steps are performed sequentially until the congestion has been eliminated. If one iteration of process steps 3 to 5 (chapters 2.3.2 to 2.3.4) is not sufficient to meet total MBI demand, further iterations may follow.

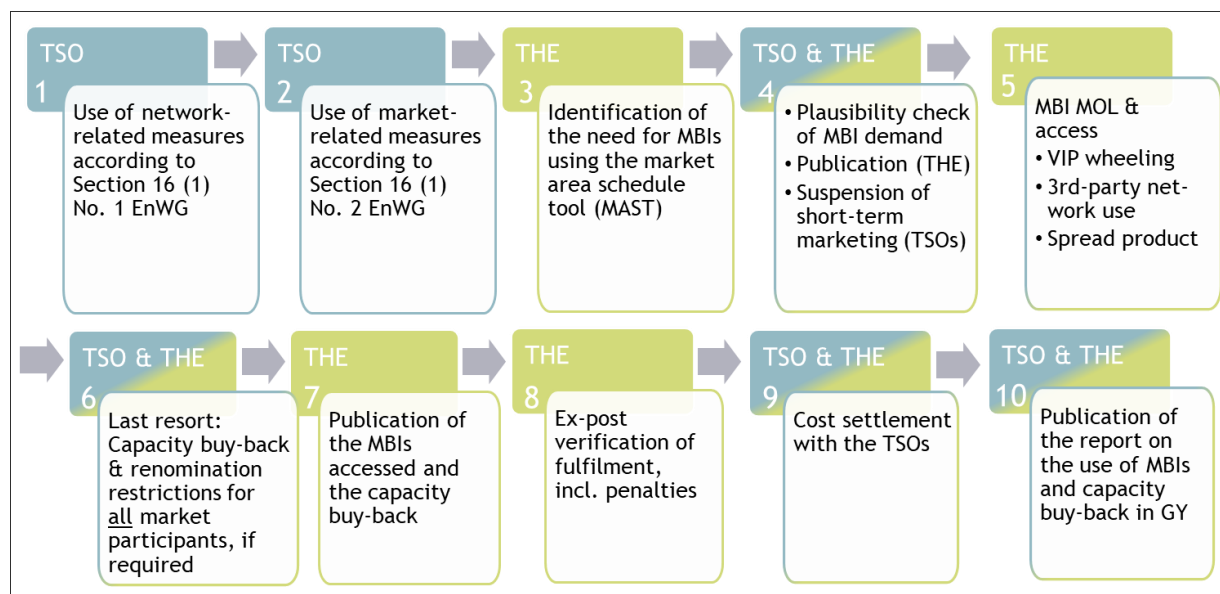


Figure 1: Overview of MBI and capacity buy-back process

2.2 Upstream process steps

2.2.1 Use of network-related measures by the TSO in accordance with Section 16 (1) No. 1 of the German Energy Industry Act (EnWG) (process step 1)

In this process step, each TSO in the market area takes all network-related measures pursuant to Section 16 (1) No. 1 of the German Energy Industry Act (EnWG) that counteract the congestion. These measures currently include:

- Use of network flexibility as an internal system balancing tool (storage facilities connected to the network, line pack, etc.)
- Use of different flow paths/directions
- Shift of gas quantities between TSOs within and outside the market area, also via foreign networks, on an 'as available' basis

2.2.2 Use of market-related measures by the TSO in accordance with Section 16 (1) No. 2 EnWG (process step 2)

In this process step, each TSO in the market area takes all market-related measures that mitigate congestion in accordance with Section 16 (1) No. 2 EnWG. These measures currently include:

- Use of load flow commitments
- Interruption of interruptible transmission capacities

The selection of measures is based on suitability, necessity and the degree to which gas supply and network use are impaired (intervention depth). Accordingly, interruptible inter-system capacity applications (*unterbrechbare Interne Bestellung – ulB*) may be interrupted and regional hedging instruments used after the use of MBIs.

2.3 MBI processes

2.3.1 Description of the instruments

The BK7-23-043 ruling lists various MBIs that can be used to overcome capacity congestion:

- Spread product
- VIP wheeling
- Third-party network use

2.3.1.1 Spread product

When the 'spread product' MBI is used, the congestion is eliminated by third parties as part of exchange transactions (see Figure 2). The spread product is not an exchange product in its own right. It is rather a combination of various simultaneous trades using local exchange products that are suitable for eliminating congestion if there is an MBI demand. For this purpose, the THE market area is currently divided into so-called 'balancing areas' in the H-gas quality zone, which cover the identified congestion zones. When local products are used in the H-gas zone to meet MBI demand, there is simultaneous buying and selling of gas by the MAM in the balancing areas upstream and

downstream of the congestion, with gas being sold in the oversupplied balancing area ('upstream zone') and gas being bought in the undersupplied balancing area ('downstream zone').

Since some entry and exit points in the market area will have a physical effect on both balancing areas, the exchange has introduced different product types ("area products", "cluster products" and "VIP products") for spread product trading to allow for the fact that the maximum congestion-serving effect of flow changes at these entry/exit points is limited (to take account of the so-called "potential").

The actual "spread" is the difference between the buying and selling prices of the trades executed by the MAM. The balancing group managers participating in the trades are obliged to cause a corresponding physical effect after the trade has been executed in order to eliminate the congestion. The relevant product rules are set out in section 25 of the Balancing Group Contract Terms & Conditions.

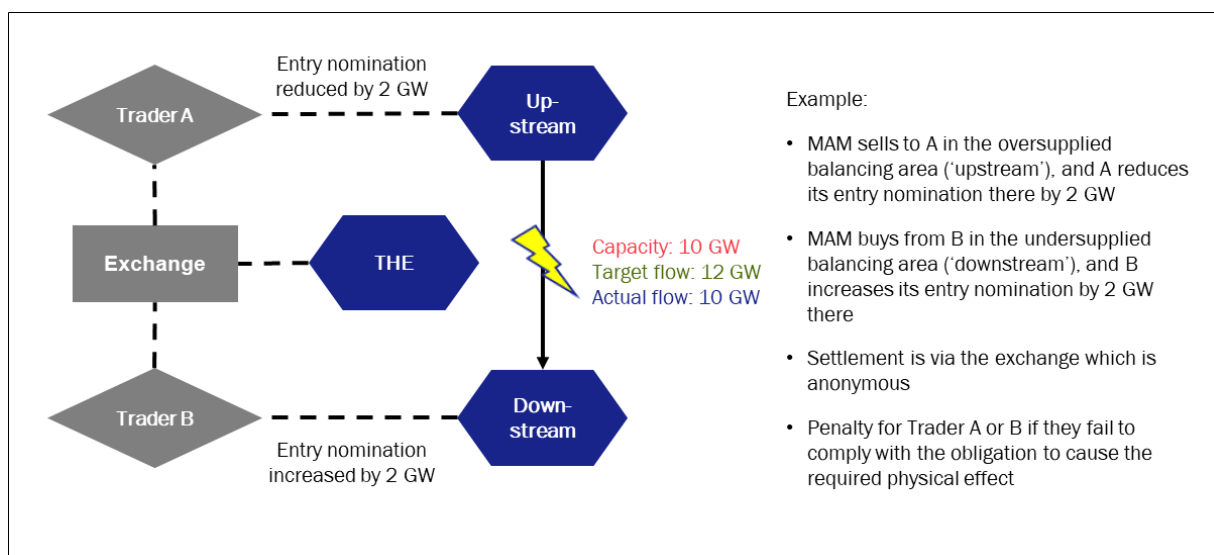


Figure 2: Example of spread product

2.3.1.2 VIP wheeling

VIP wheeling (see Figure 3) involves the MAM shipping gas in return for a fee via an adjacent, foreign pipeline system outside the market area at the usual transportation fees in order to eliminate congestion within the market area. In this case, entry and exit capacities are booked at only one congestion-straddling virtual interconnection point (VIP). VIP wheeling can only be deployed if the MAM has actually been awarded the required transmission capacity in the respective auction.

The TSO will fully use the shifting potential to facilitate network operation at a VIP before VIP wheeling is deployed as part of the network-related measures in accordance with Section 16 (1) No. 1 of the German Energy Industry Act (EnWG).

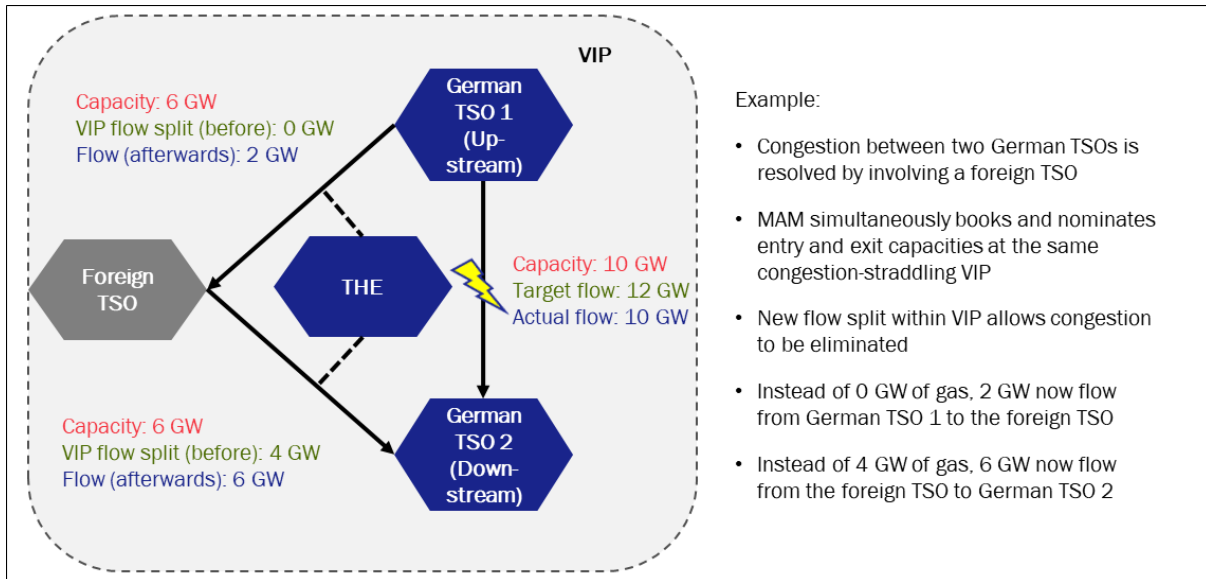


Figure 3: Graphical representation of VIP wheeling

2.3.1.3 Third-party network use

Third-party network use involves the transmission of gas in return for a fee via a maximum of two adjacent, foreign pipeline networks outside the THE market area between several bookable VIPs or cross-border IPs that are spatially distant from one another to resolve a congestion situation in the market area; see Figure 4.

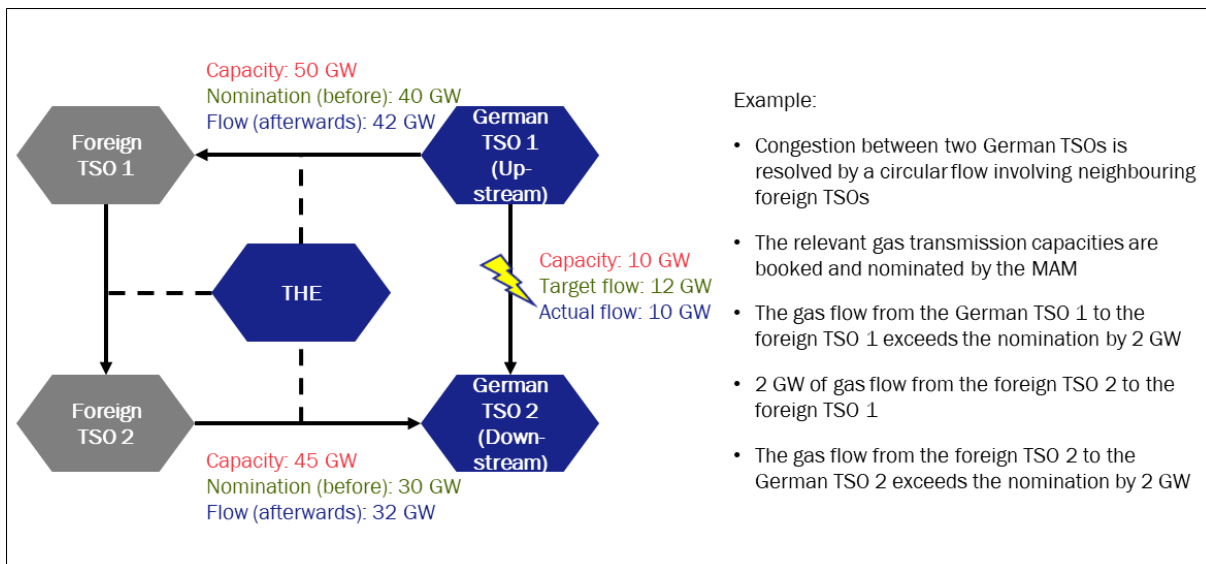


Figure 4: Graphical representation of third-party network use

The required capacities on the German and foreign transmission networks are booked by THE with the respective TSO in auctions on the relevant capacity booking platform. THE generally participates in auctions where firm capacities is on offer. In order to minimise any restrictions on trading by market participants, third-party network use is based exclusively on day-ahead or within-day

capacities. Bids in auctions are submitted at the reserve price and with a minimum capacity quantity of 0.

2.3.2 Determining MBI demand using the market area scheduling tool (process step 3)

The market area scheduling tool (MAST) used by THE is the central IT application in the steering model. Based on various input parameters from the TSOs, the tool determines, among other things, schedules between TSOs as well as the time of the MBI demand and the actual quantity of MBIs required.

2.3.3 Coordination between THE and the TSOs to verify the plausibility of the MBI demand, publication of the demand and suspension of capacity marketing (process step 4)

The MBI demand determined by THE to eliminate the identified capacity congestion in THE’s market area is validated and verified together with the TSOs. The verified MBI demand is published on THE’s website¹ no later than three and a half (3.5) hours before the start of the contract period in the form of a range while specifying the congestion zone. The information is also displayed in the RSS feed. In addition, market participants can register for a free push service that automatically notifies them of any MBI demand by email and prompts them to submit a bid.

At the same time, the TSOs will suspend intraday capacity marketing at the entry points of the upstream congestion zone and at the exit points of the downstream congestion zone for the rest of the day. This helps to avoid exacerbating the congestion situation so that the further measures can take full effect.

2.3.4 Creation of the MBI MOL and MBI call-off (process step 5)

Based on the time and quantity of the MBI demand determined in process step 3 (chapter 2.3.2), a price-optimised MBI MOL (merit order list) is created and called off.

Costs (monetary unit / MWh)	MBI
47	Spread product
48	Spread product
50	VIP wheeling
53	Spread product
55	Spread product
56	Spread product
57	Third-party network use
58	Spread product

Figure 5: Schematic representation of MBI MOL

The costs for VIP wheeling and third-party network use are known at the time the MBI MOL is created. These costs are essentially driven by the cost of booking transmission capacities via one

¹ <https://www.tradinghub.eu/en-gb/Publications/MBI-and-capacity-buy-back/MBI-demand>

(VIP wheeling) or up to two (third-party network use) adjacent foreign pipeline networks outside the market area.

The spread product is traded continuously, which means it can be traded as long as the price spread is below the cost of VIP wheeling and third-party network use.

The potential defines the maximum level of MBI use for each congestion-straddling THE VIP (VIP wheeling, third-party network use, VIP order books) and in the cluster order books.

The effect of the MBIs is shown schematically in Figure 6 below.

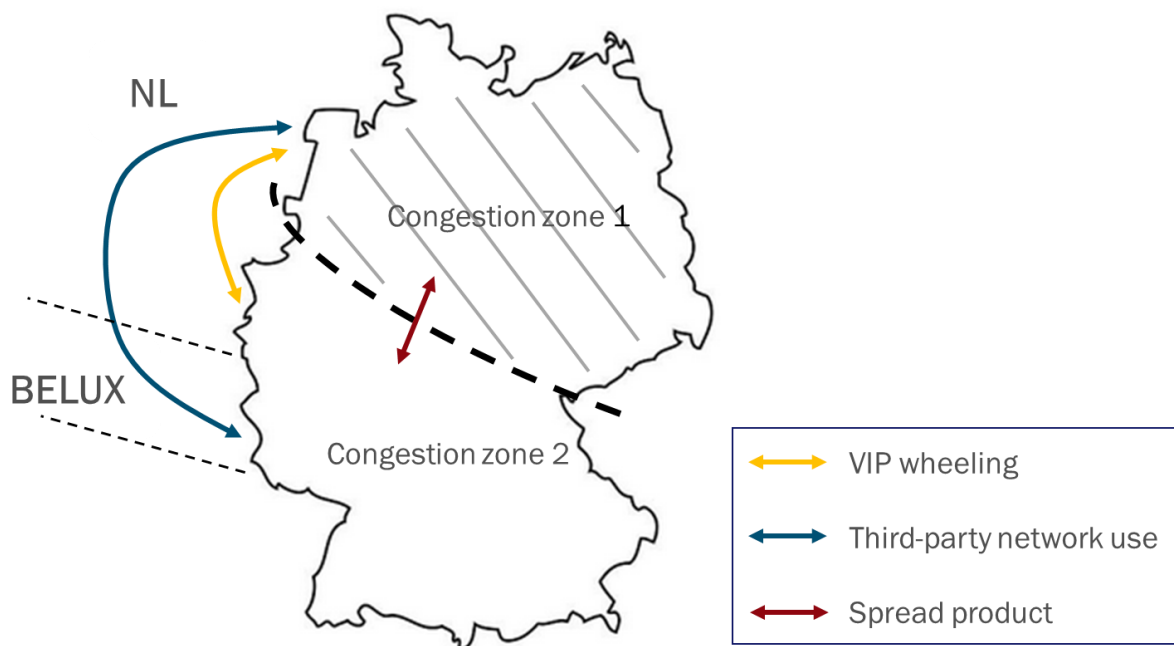


Figure 6: Simplified representation of effects created by MBIs

The local/geographic fulfilment borders for the spread product (upstream and downstream congestion zones) and the capacity buy-back (upstream congestion zone) can be found in the THE points list, which is published on the THE website².

² <https://www.tradinghub.eu/en-gb/Download/Download-center-THE#129896-balancing-gas-related-downloads>

2.4 Capacity buy-back (process step 6)

The capacity buy-back option is only used as a last resort if MBIs are not available in sufficient quantities.

For the capacity buy-back process, registered shippers (providers) are invited to submit bids, whereby the exact level of demand is communicated in the form of a range. The capacity buy-back demand is published on the THE website³ no later than three and a half (3.5) hours before the start of the contract period (also in the RSS feed and via a push service, for which market participants can register free of charge). After the opening of the tender on THE's capacity buy-back portal, the shipper submits its bid for the obligation to change the nomination of its firm transmission capacities with an individual price.

Based on the capacity buy-back MOL created, THE commits the respective providers to adjust their existing nominations in accordance with the provisions of the capacity buy-back terms and conditions⁴.

Moreover, after having fulfilled its capacity buy-back obligations, the provider must not change its entry or exit quantities in a way that could have an adverse impact on network operation. This means that in the upstream congestion zone, the provider may neither subsequently increase its entry quantities nor subsequently reduce its exit quantities, and the reverse applies accordingly to the downstream congestion zone.

In contrast to the MBIs, which involve taking simultaneous action in the zones upstream and downstream of the congestion, capacity buy-back transactions only apply to entry and exit points in the upstream congestion zone. The effect on both congestion zones will depend on the behaviour of the providers.

If the TSOs come to the conclusion that, for a specific congestion situation, a threat to or disruption of the security or reliability of the gas supply system cannot be prevented for the rest of the day without extending the ban on changes to entry/exit quantities that have an adverse impact on network operation for all market participants in H gas, a ban on such changes will be imposed for all market participants in H gas for the rest of the day. This means that in the upstream congestion zone, market participants must neither subsequently increase their entry quantities nor must they subsequently reduce their exit quantities. The reverse applies accordingly to the downstream congestion zone. The contractual provisions governing these nomination and re-nomination restrictions have been incorporated into Section 25a of the terms Balancing Group Contract Terms & Conditions.

A capacity buy-back example is shown in Figure 7 below.

³ <https://www.tradinghub.eu/en-gb/Publications/MBI-and-capacity-buy-back/Capacity-buy-back-requirement-message>

⁴ <https://www.tradinghub.eu/en-gb/Download/Download-center-THE#1298151-capacity-buy-back>

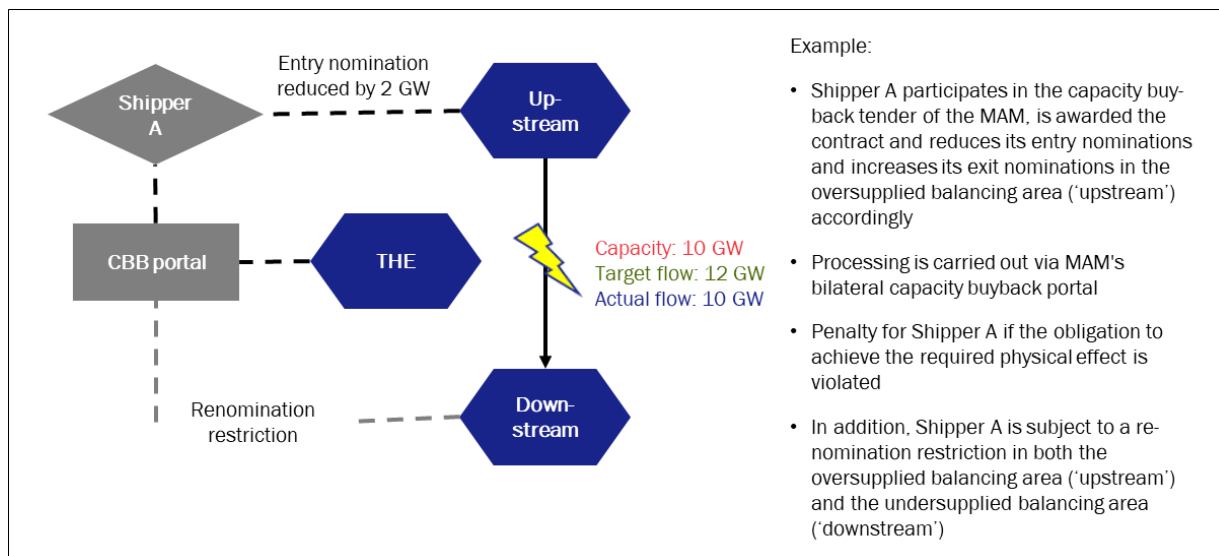


Figure 7: Example of capacity buy-back

2.5 Publication of the MBIs and capacity buy-back details (process step 7)

THE will promptly publish the MBI⁵ and capacity buy-back⁶ details on its website, specifying the capacity, duration and costs/revenues (spread product) for each individual instrument. The associated potential is also published on the THE website⁷. A download in an electronically usable format as well as an XML interface for automated data retrieval have been made available for all data provided.

2.6 Ex-post verification of fulfilment including penalty (process step 8)

For the spread product and the capacity buy-back, the respective providers are directly responsible for process execution. Therefore, THE subsequently checks whether the providers have correctly fulfilled their obligations in accordance with section 25 of the balancing group contract and the terms and conditions for the capacity buy-back. If a violation is detected, a penalty is imposed in accordance with the respective regulations.

2.7 Cost allocation to the TSOs (process step 9)

The costs incurred for the MBI and capacity buy-back are passed on to the TSOs.

2.8 Publication of the annual monitoring report (process step 10)

After each gas year (GY), the TSOs and THE prepare a joint report on the use of MBIs and capacity buy-back transactions, which is published on THE's website⁸.

⁵ <https://www.tradinghub.eu/en-gb/Publications/MBI-and-capacity-buy-back/MBI-usage>

⁶ <https://www.tradinghub.eu/en-gb/Publications/MBI-and-capacity-buy-back/Capacity-buy-back-usage>

⁷ <https://www.tradinghub.eu/en-gb/Publications/MBI-and-capacity-buy-back/Potentials>

⁸ <https://www.tradinghub.eu/en-gb/Download/Download-center-THE#1298167-reports>

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