

Process Description for MBIs and Capacity Buy-back

Berlin, 6 April 2020

Disclaimer: This Process Description is published in the German language. The translation shall be considered a convenience translation only; in the event of any conflict in meaning between the two versions, the German language version shall prevail.

List of contents

- 1 Introduction..... 3
- 2 Process Description for MBI Use and Capacity Buy-back 4
 - 2.1 Overview 4
 - 2.2 Process Steps taken before MBI and Capacity Buy-back..... 4
 - 2.2.1 Use of Network-related Measures at the TSO according to Section 16 (1) No. 1 EnWG (Process Step 1)..... 4
 - 2.2.2 Use of Market-related Measures at the TSO according to Section 16 (1) No. 2 EnWG (Process Step 2)..... 5
 - 2.3 MBI Processes and Capacity Buy-back 5
 - 2.3.1 Identification of the Need for MBIs using the Market Area Schedule Tool (Process Step 3)..... 5
 - 2.3.2 Coordination between THE and TSOs to check Plausibility of MBI Demand (Process Step 4) 5
 - 2.3.3 MBI MOL and Call Order (Process Step 5)..... 5
 - 2.3.4 Capacity Buy-back (Process Step 6) 9
 - 2.3.5 Publication of the MBIs called and the Capacity Buy-back (Process Step 7) 11
 - 2.3.6 Ex-post Verification of Fulfilment incl. Penalty (Process Step 8) 11
 - 2.3.7 Cost Settlement with the TSOs (Process Step 9) 12
- 3 List of figures 14

1 Introduction

In file BK7-19-037 of ruling chamber 7 on the "KAP+" procedure for additional capacity in the single German market area – second consultation: joint concept from transmission system operators for an overbooking and buy-back scheme, the ruling chamber suggests that in order to improve understanding of the functioning and effectiveness of the market-based instruments and the capacity buy-back scheme and for reasons of transparency and acceptance, the concept should include a more comprehensive process description and more detailed information about the product characteristics. As announced in the statement of the transmission system operators (TSOs) of 11 November 2019, the TSOs are pleased to respond to this suggestion.

Section 2 of this document describes the planned process of using the newly introduced market-based instruments (MBIs) and the capacity buy-back product.

2 Process Description for MBI Use and Capacity Buy-back

2.1 Overview

The following diagram provides an overview of the process deployed by the TSOs and Trading Hub Europe (THE) from when a network capacity congestion is identified to until it is eliminated. The individual process steps are performed sequentially until the congestion has been removed/eliminated. Sections 2.2 and 2.3 describe the individual steps in more detail.

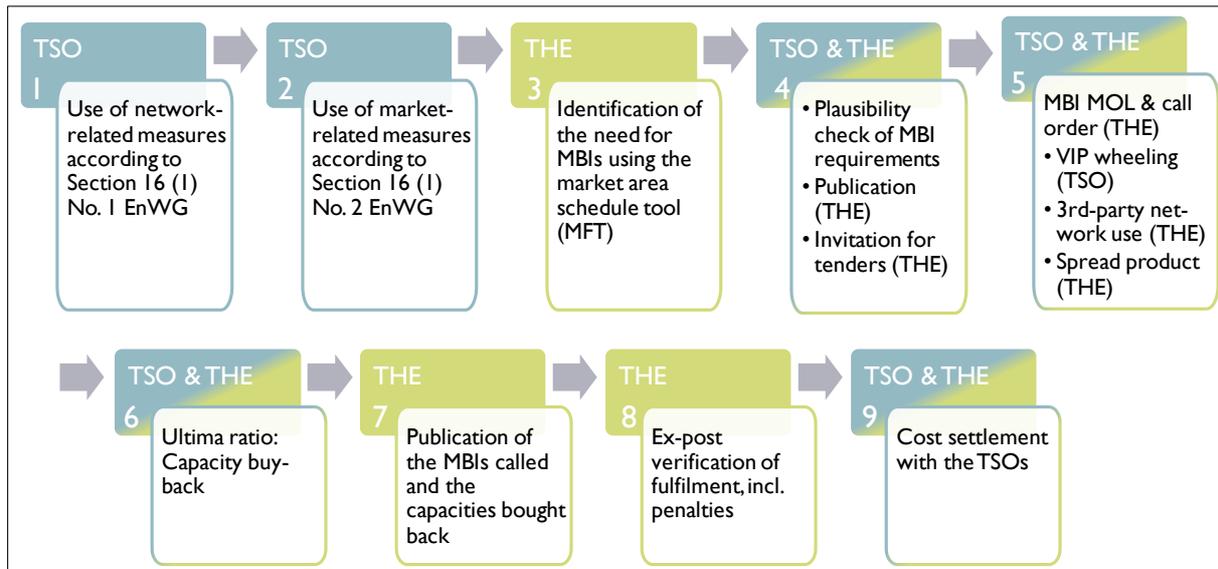


Figure 1: Overview of MBI and capacity buy-back process

2.2 Process Steps taken before MBI and Capacity Buy-back

2.2.1 Use of Network-related Measures at the TSO according to Section 16 (1) No. 1 EnWG (Process Step 1)

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

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

2.2.2 Use of Market-related Measures at the TSO according to Section 16 (1) No. 2 EnWG (Process Step 2)

In this process step, each TSO in the market area use all helpful market-related measures pursuant to Section 16 (1) No. 2 of the German Energy Industry Act (EnWG) that resolve the congestion. These measures currently include:

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

The selection of measures is oriented towards suitability, necessity and on the level of impact on gas supply and network users (depth of intervention). Therefore the interruption of interruptible internal orders and the usage of regional security instruments can take place after the usage of market-based instruments.

2.3 MBI Processes and Capacity Buy-back

2.3.1 Identification of the Need for MBIs using the Market Area Schedule Tool (Process Step 3)

The market area schedule tool (MFT) used by THE is the central IT application in the schedule planning. Based on a node and edge model, the MFT uses different TSO input parameters to determine, among other things, schedules between the TSOs as well as the demand for MBIs in terms of timing and quantity.

2.3.2 Coordination between THE and TSOs to check Plausibility of MBI Demand (Process Step 4)

The demand for MBIs required to resolve the identified capacity congestion in the THE market area is determined by THE and then validated and checked for plausibility together with the TSOs. The verified MBI demand is published, and the market participants are invited to submit bids for the spread product.

At the same time, the TSOs will suspend short-term marketing at entry points in the upstream congestion zone. Short-term marketing at the entry points in the downstream congestion zone will continue.

2.3.3 MBI MOL and Call Order (Process Step 5)

2.3.3.1 Description

Based on the time and quantity of the MBIs as determined in process step 3 (Section 2.3.1), a price-optimised MBI MOL (merit order list) is created and called.

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 2: Schematic representation of MBI MOL

The effect of the MBIs is shown schematically in Figure 3 below.

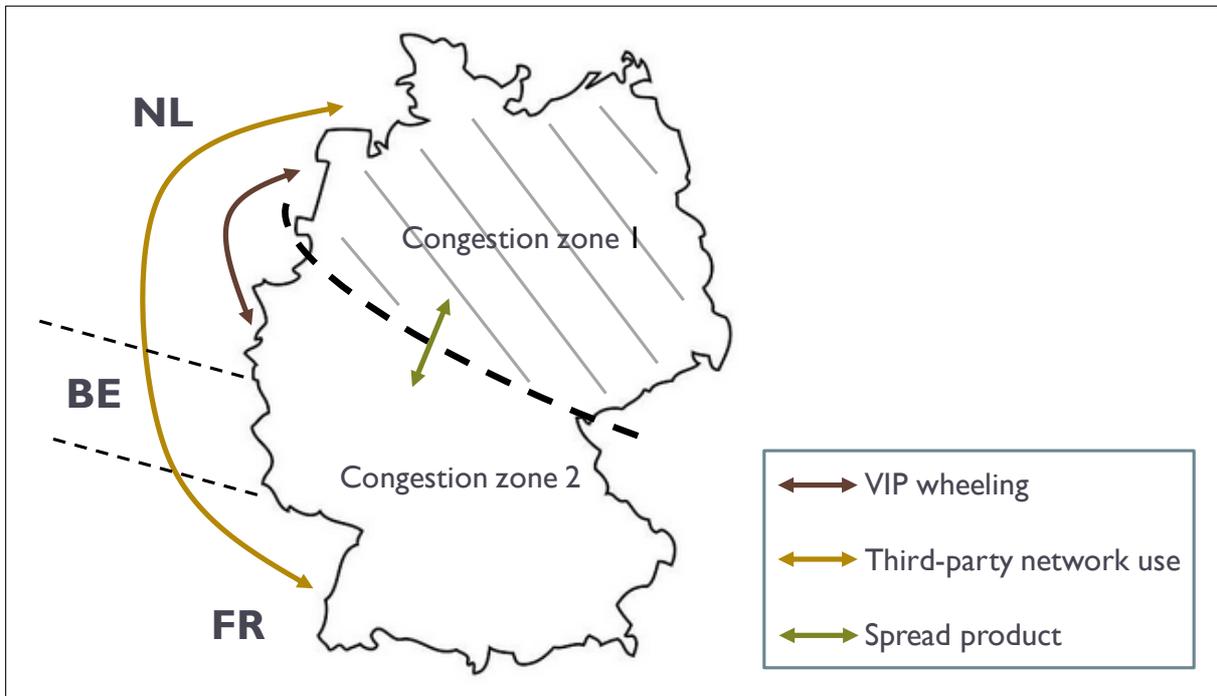


Figure 3: Overview of MBIs

The local/geographic fulfilment borders for the spread product (upstream and downstream congestion zones) and the capacity buy-back (upstream congestion zone) are defined by the capacity model and are currently assumed to be approximately the H-gas points of the old GASPOOL market area and the old NCG market area.

The following processes should be considered against the background of the marketing situation for bookable transmission capacities, available capacity for the use of VIP wheeling as well as the price volatility of the spread products.

2.3.3.2 VIP Wheeling

Following the creation of a VIP, shippers no longer have to make bookings and nominations at cross-border IPs individually. This means that the German and foreign TSOs at a VIP have to allocate the gas flows resulting from the nominations to the physical points of the VIP according to the rules laid down in the VIP contract.

The German TSO will fully use any VIP steering flow plan potential that will facilitate network operation within a VIP before using VIP wheeling as part of the network-related measures according to Section 16 (1) No. 1 EnWG.

Contrary to the VIP steering flow plan within the VIP contract between the German TSO and the foreign TSO within a VIP, VIP wheeling describes a binding deviation from this contractual split which is subject to a charge, see Figure 4. The exact details still need to be clarified with the relevant foreign TSOs.

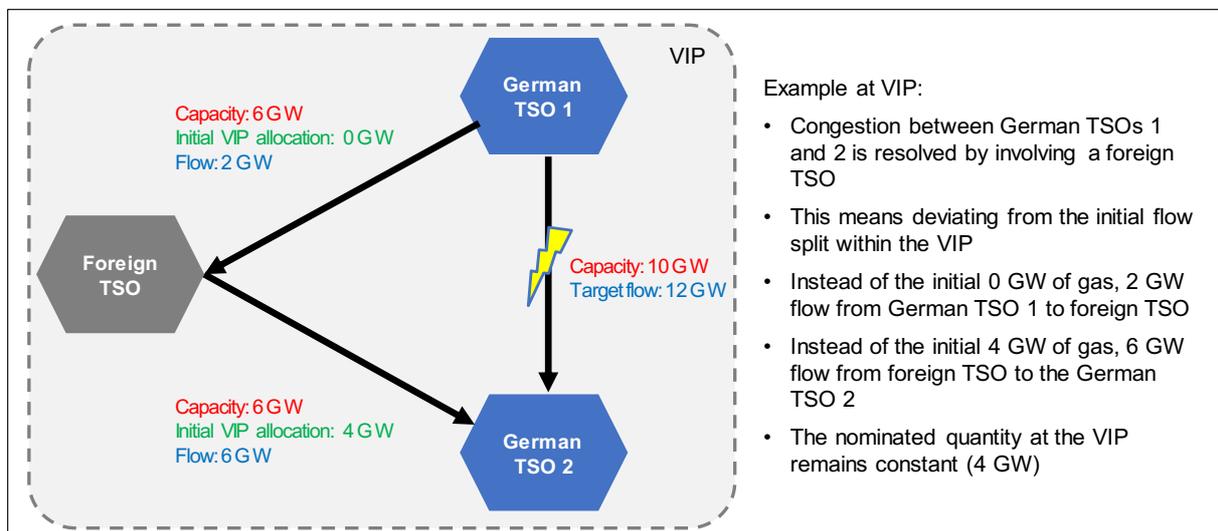


Figure 4: VIP wheeling example

The VIP wheeling process is shown in Figure 5 below.

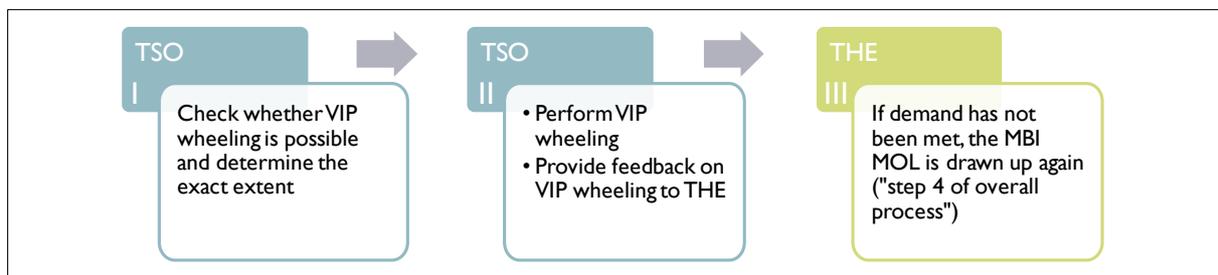


Figure 5: VIP wheeling process overview

2.3.3.3 Third-party Network Use

Third-party network use is the term used to describe gas transmission between several bookable and geographically distant VIPs or border crossing points, which usually takes place via two adjacent, foreign transmission networks outside the market area and is subject to a charge. The aim is to resolve congestion within the market area, see Figure 6.

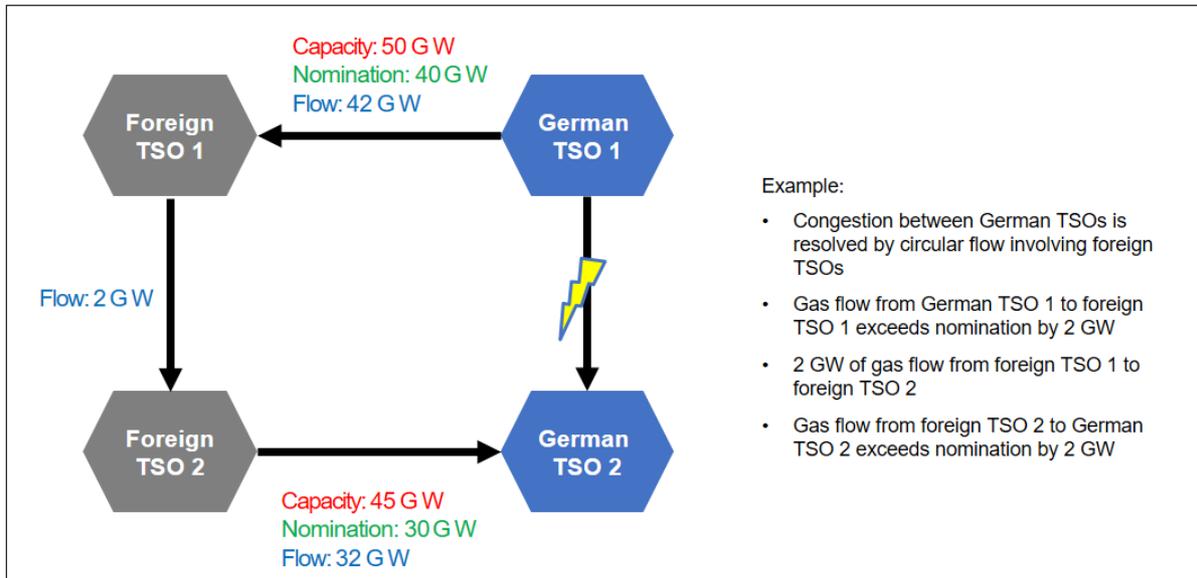


Figure 6: Example of third-party network use

The process underlying third-party network use is shown in Figure 7 below.

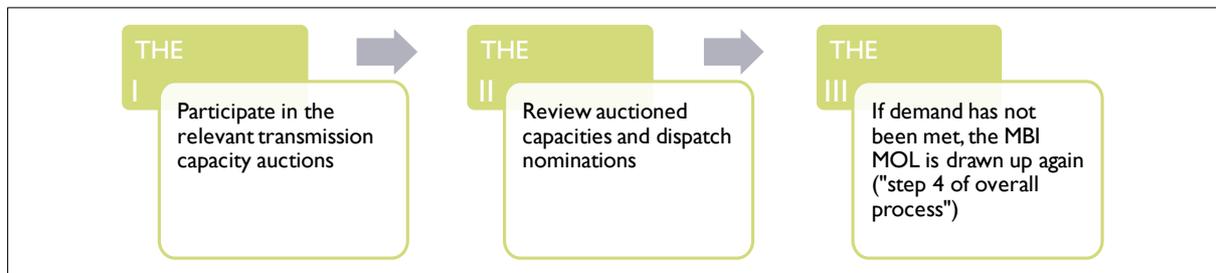


Figure 7: Process flow for third-party network use

2.3.3.4 Spread Product

A spread product is a standardised, exchange-based product which is used to buy and sell gas simultaneously in different zones. Network congestion is resolved in a market-based way through trading transactions upstream and downstream of the congested area (upstream / downstream congestion zone). For the use of this product, THE pays the difference between the buy and sell price (spread) on the exchange plus any fees, see Figure 8.

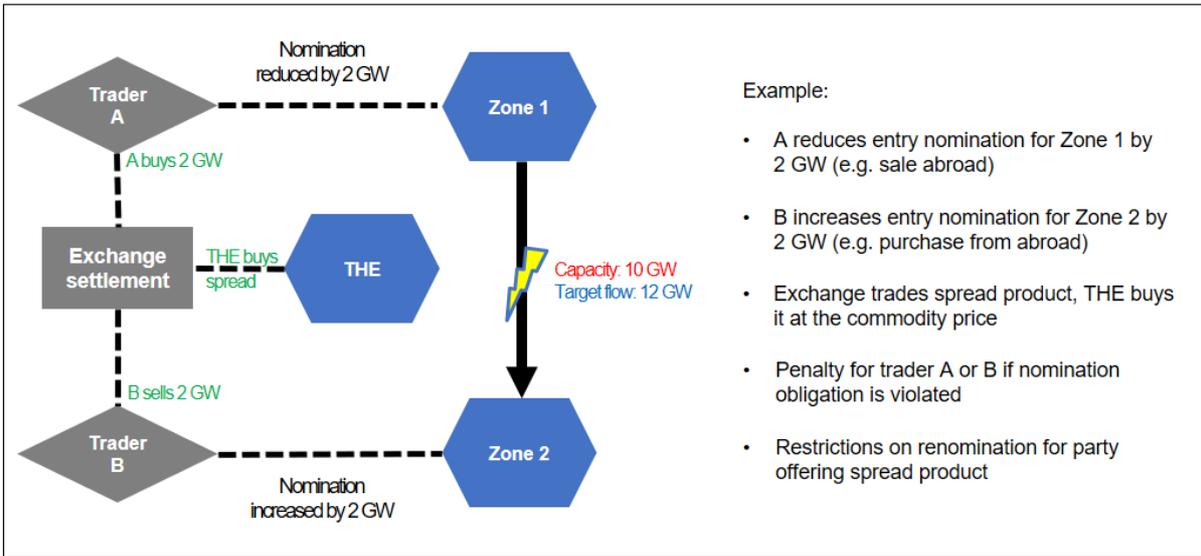


Figure 8: Spread product example

The process for the spread product is shown in Figure 9 below.

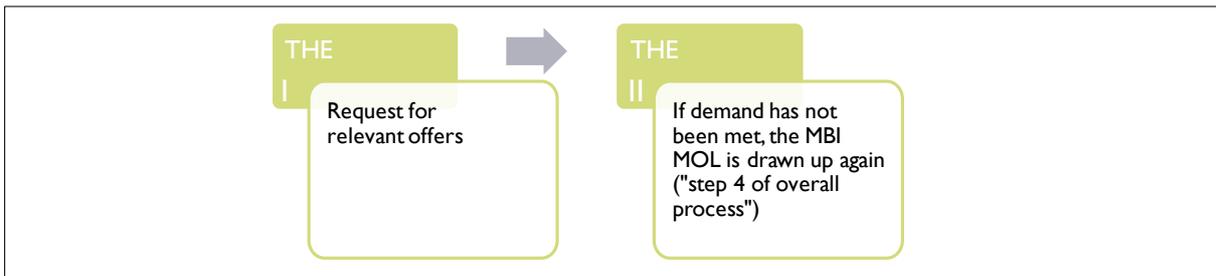


Figure 9: Process flow for spread product

Once the market has been informed of an impending congestion and the required quantity has been put out to tender and THE has called the spread product, the bidders who have been awarded the contract have to fulfil their obligations under the terms of the spread product.

In addition, after having fulfilled their obligations under the terms of the spread product, they must not change entry or exit quantities in the respective balancing group in a way that could have an adverse impact on the congestion situation. This means that in the upstream congestion zone, the provider may neither subsequently increase its entry quantity nor reduce its exit quantity. The reverse applies accordingly to the downstream congestion zone.

2.3.4 Capacity Buy-back (Process Step 6)

Capacity buy-back is a 'ultima ratio' procedure which is subordinate to the MBI products (VIP wheeling, third-party network use and spread) described above. It is used when the MBI products are unavailable or not sufficiently available.

In this case THE acquires the right of use (nomination possibility) for the capacities for firm, nominated entry capacity in the upstream congestion zone from the supplier on the basis of

the capacity buy back MOL. If the offer of the supplier is accepted, the supplier is obliged to reduce the nomination in the amount of the acceptance.

It does not matter whether the capacity bought back was originally attributable to the base capacity or to the additional capacity.

In contrast to the MBIs, for which simultaneous action is taken in the zones upstream and downstream of the congestion, the capacity buy-back product relates only to entry points in the upstream congestion zone. The effect on both congestion zones depends on the shippers' behaviour.

Unlike the spread product, the capacity buy-back product comes with a ban for the rest of the day (subject to prior information of the market) on changes to entry and exit quantities for all H-gas market participants that may have an adverse effect on the network. This means that, in the upstream congestion zone, market participants may, on balance, neither subsequently increase their entry quantities nor subsequently reduce their exit quantities. The reverse applies accordingly to the downstream congestion zone.

For the nomination and renomination restrictions as well as the consequences in case of a violation contractual provisions will be developed (e.g. within the cooperation agreement).

In case of capacity buy backs the market is asked to submit offers. The level of demand is communicated (possibly as range). The shipper then posts its buy back offer for already nominated capacity with individual buy back price on a platform of THE.

A capacity buy-back example is shown in Figure 10 below.

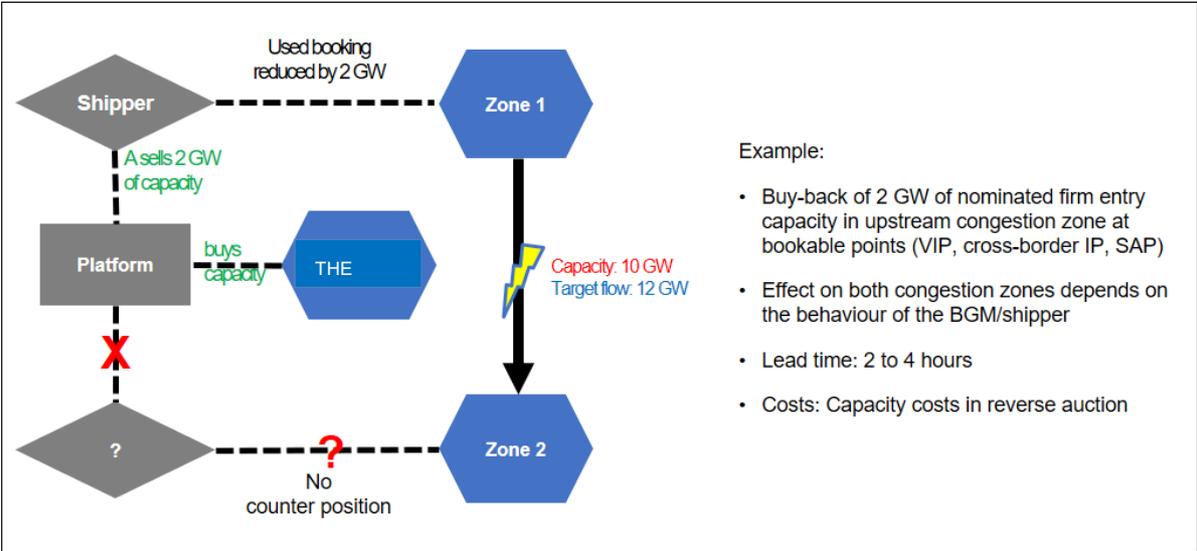


Figure 10: Capacity buy-back example

Figure 11 below describes the process of capacity buy-back as a ultima ratio.

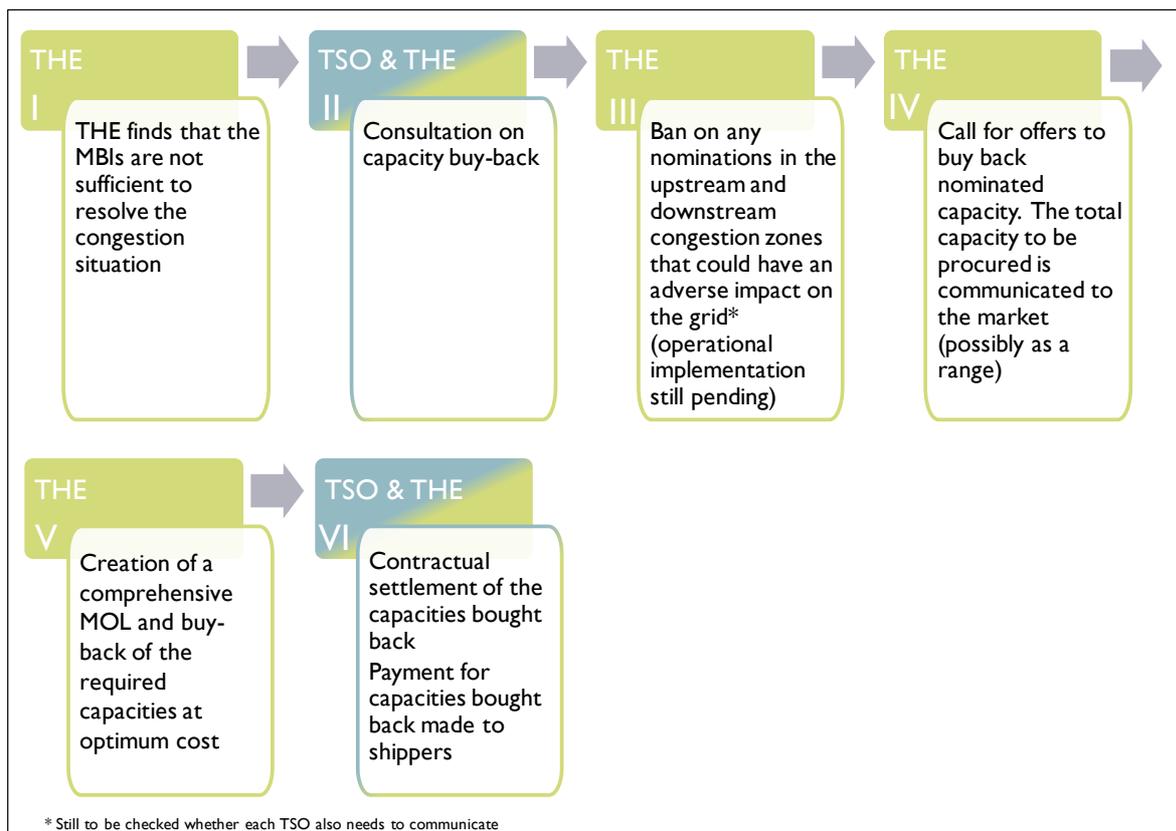


Figure 11: Capacity buy-back process

2.3.5 Publication of the MBIs called and the Capacity Buy-back (Process Step 7)

THE will publish the MBIs called and the capacity buy-back on its website in a timely manner. The corresponding capacity and the respective costs are published for each MBI in detail.

2.3.6 Ex-post Verification of Fulfilment incl. Penalty (Process Step 8)

2.3.6.1 Fulfilment of the Conditions of Spread Product

In order to verify the effectiveness of the spread product used, THE may request proof from the spread product provider of the physical realisation (particularly nominations). As a matter of principle, it will be checked whether the provider has fulfilled the product conditions.

If it is found that the provider has not complied with the conditions of the spread product, THE will impose a penalty and, if applicable, claims for compensation from the provider. For the purpose of this verification, contractual conditions similar to those for the exchange products used in the procurement of external balancing gas with physical fulfilment restrictions (Section 25 of Balancing Group Contract) must be drawn up for the spread product.

The general process is shown in the following diagram:

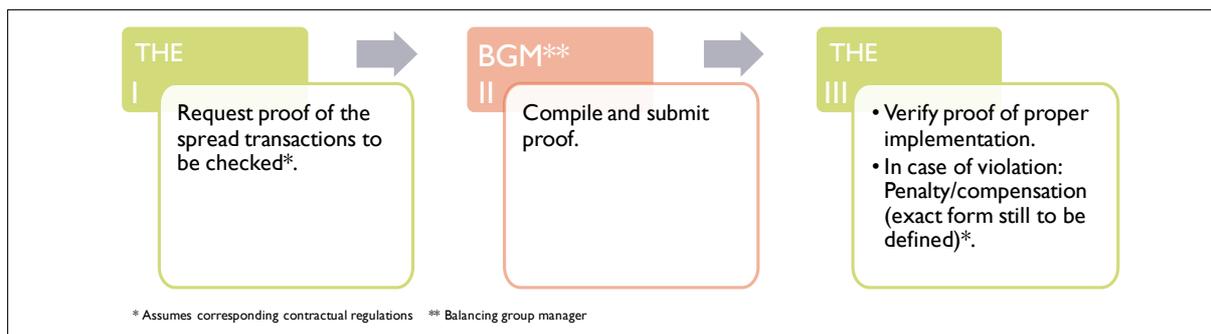


Figure 12: Process to verify fulfilment of the spread product conditions

2.3.6.2 Fulfilment of Capacity Buy-back Conditions

Participation in the capacity buy-back requires nominated entry capacity in the upstream congestion zone. If the offer of the shipper is accepted, the shipper is obliged, to reduce the existing entry nomination. In case it turns out that the shipper did not have appropriate capacities/ nomination or if the renominations were not performed according to the requirements contractual provisions for the penalizations and assertion of compensation will be intended through THE.

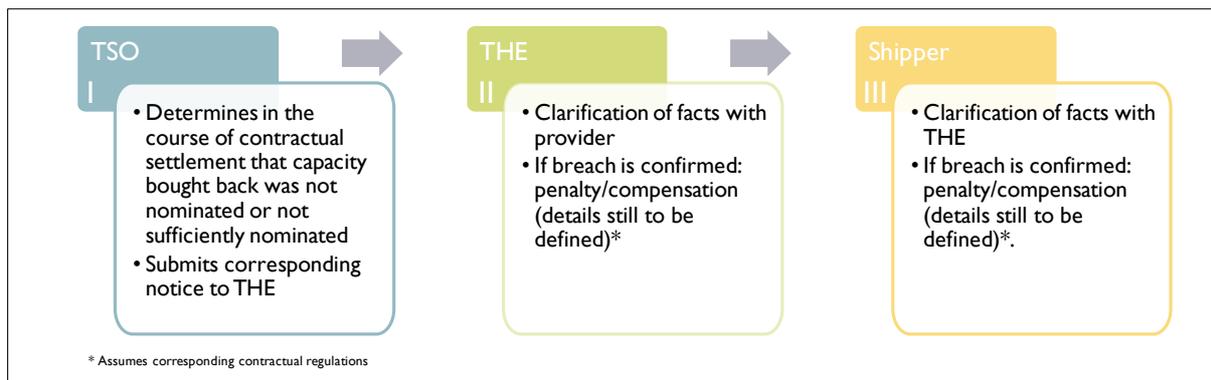


Figure 13: Process to verify fulfilment of capacity buy-back conditions

Even in the event of a violation against the – with the introduction of the capacity buy back process – expressed prohibition of network harmful renominations through market participants contractual provisions will be introduced.

If THE or the TSOs realise that the expected physical effects do not occur, THE or the TSOs reserve the right to attach further conditions to the capacity buy-back.

2.3.7 Cost Settlement with the TSOs (Process Step 9)

The costs incurred in connection with the MBLs and the capacity buy-back are passed on to the TSOs.

3 List of figures

Figure 1: Overview of MBI and capacity buy-back process 4

Figure 2: Schematic representation of MBI MOL 6

Figure 3: Overview of MBIs 6

Figure 4: VIP wheeling example 7

Figure 5: VIP wheeling process overview 7

Figure 6: Example of third-party network use 8

Figure 7: Process flow for third-party network use 8

Figure 8: Spread product example 9

Figure 9: Process flow for spread product 9

Figure 10: Capacity buy-back example 10

Figure 11: Capacity buy-back process 11

Figure 12: Process to verify fulfilment of the spread product conditions 12

Figure 13: Process to verify fulfilment of capacity buy-back conditions 12