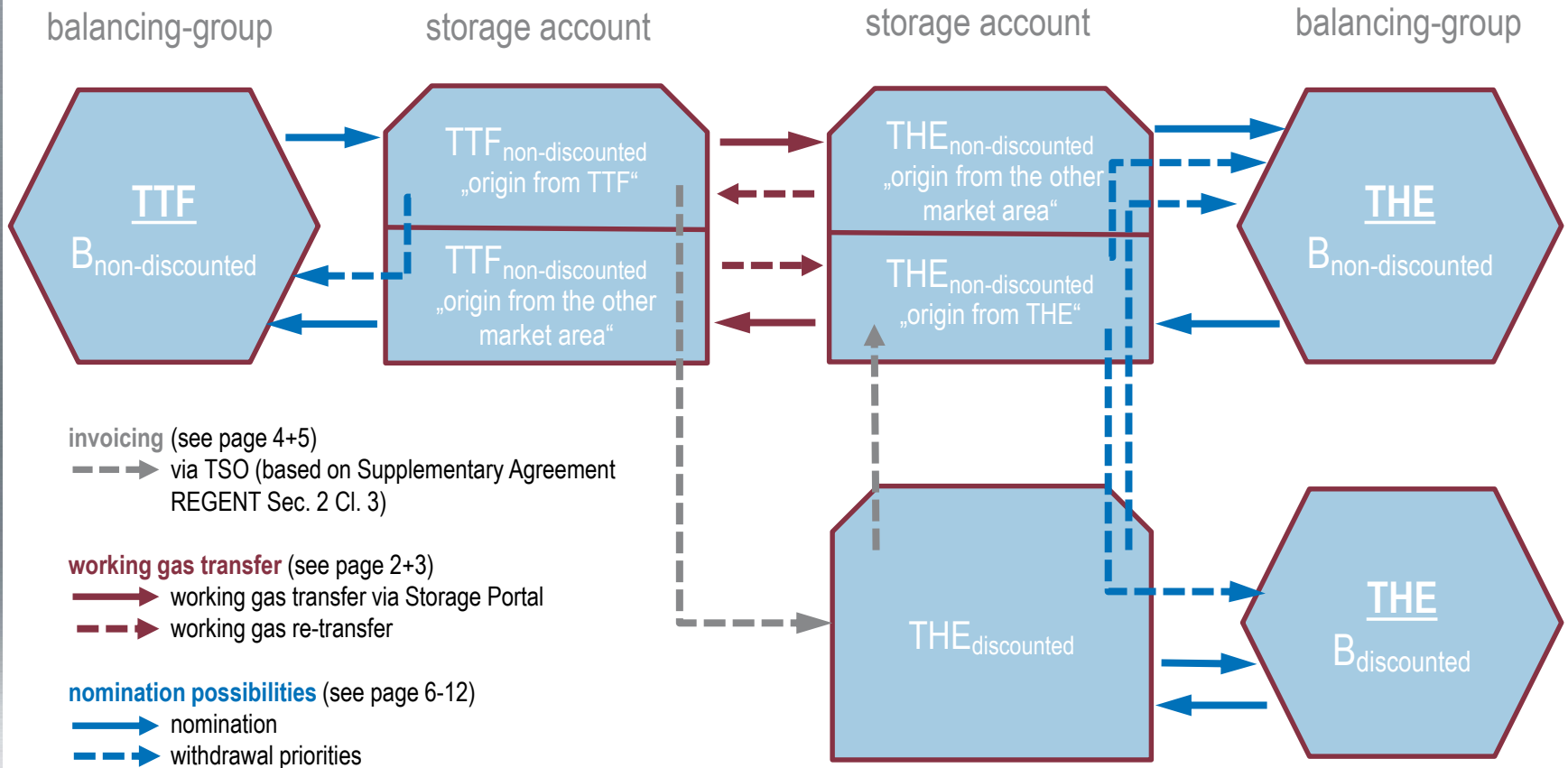


GENERAL POSSIBILITIES



WORKING GAS TRANSFER VIA STORAGE-PORTAL



Internal transfer

External transfer

S	T	Storage accounts	kWh
<input type="radio"/>	<input type="radio"/>	ND THE (GASCADE)	<input type="text" value="0"/> i <input checked="" type="checkbox"/> 0 i <input type="checkbox"/> 0 i
	<input type="radio"/>	D THE (GASCADE)	<input type="text" value="67,493,600"/> i <input checked="" type="checkbox"/> 67,493,600 i <input type="checkbox"/> 0 i
<input type="radio"/>	<input type="radio"/>	ND TTF (GTS)	<input type="text" value="1,407,200"/> i <input type="checkbox"/> 1,407,200 i <input checked="" type="checkbox"/> 0 i

1. Determine type of transfer
2. Choose source
3. Choose target
4. Enter transfer quantity

with origin from the other market area



Within one market area

For quantities previously stored from a market area:

These quantities can be transferred via storage-portal at any time between storage customers on an account-specific basis (discounted and non-discounted), so that working gas can either be transferred from a discounted to a discounted or from a non-discounted to a non-discounted account.

Across market areas

Quantities injected from one market area with non-discounted tariff could be transferred to the account of the other market area via storage-portal, **but**:

a further re-transfer of these quantities may be amended only by written request to astora (Email: operations@astora.de / Phone: +49 561 99858-8800) with a lead time of minimum 2 hours)

“Invoicing”

Transfer of quantities from

- “THE_{discounted}” to “THE_{non-discounted}” or
- “TTF_{non-discounted} origin from TTF” to “THE_{discounted}”

are subject to the following regulation:

1. Rebooking duration: minimum one gas day (6 am to 6 am)
2. Independent of the process of the TSO, astora has to receive the “rebooking request” for gas day D from the TSO latest D-1 (2 pm)
3. astora will transfer the working gas volume latest D-1 (6 pm) to the respective storage account
4. Working gas volume = capacity/quantity amount in kWh/d



- Gascade -

Request for invoicing of fees for discounted gas quantities

In accordance with the requirements of the Bundesnetzagentur's decisions regarding the regular determination of the Reference price method of 29.03.2019 (BK9-18/611-GP; digit 393 ff.; valid from 01.01.2020) it is not necessary for shippers, who have stored gas via discounted capacities in the storage of EWE Gasspeicher GmbH or astora GmbH & Co. KG and are subsequently willing to transport this gas into the market area of NCG or the Netherlands (TTF), to book capacities from GASCADE Gastransport GmbH (hereinafter referred to as "GASCADE"). At the shipper's request, the fees may instead be invoiced at the affected store.

GASCADE uses as a basis a corresponding invoicing tariff for discounted Entry capacities and non-discounted Exit capacities.

The following network points are affected:

Grid point - ID	ETSO/EIC-Code MaLo-ID	Grid Point	Flow direction	Type of grid point	Storage operator
1BMA	21Z00000000268D	Jemgum I	Exit	Storage	astora GmbH & Co. KG
1BMA	21Z00000000268D	Jemgum I	Entry	Storage	astora GmbH & Co. KG
1BRA	21Z00000000269B	Jemgum III	Exit	Storage	EWE GASSPEICHER GmbH
1BRA	21Z00000000269B	Jemgum III	Entry	Storage	EWE GASSPEICHER GmbH

For the application, the following standard form must be completed in full and sent to implementierung@gascade.de.

The following requirements must be considered:

- The lead time is up to 3 business days
- The duration is at least one gas day and always whole gas days
- The capacity is expressed in whole kWh/h.

GASCADE will check the form and, if the above conditions are met, forward it to the appropriate storage operator. After the consent of the storage operator to implement the requested rebooking, the relevant fee will be invoiced to the transport customer in accordance with the currently valid price list of GASCADE.

In compliance with data protection laws, GASCADE is entitled to pass on contract data that is required for processing/billing to the affected storage operator. This includes the quantities of working gas volume from discounted storage account to be transferred to non-discounted storage account, as well as other data relevant to the storage operator.

This document is issued in German and English. In the event of any inconsistencies between the German and English versions, the German version shall take precedence.

Binding application for invoicing of fees for discounted gas quantities

Contact

Company name: _____

Name: _____

Adress: _____

E-Mail-Adress: _____

Phone: _____

Requested invoicing

Affected Storage: _____

Grid point-ID: _____

Marketarea: GASPOOL

Capacity amount: _____ kWh/h _____ kWh/d

Discounted Balancing group: _____

Non-Discounted Balancing group: _____

Runtime start: _____

Runtime end: _____

I hereby accept the terms and conditions for the entry and exit contract of GASCADE Gastransport GmbH in their current version as well as the current price list of GASCADE Gastransport GmbH.

Location, Date: _____ Stamp, Signature: _____

This form must be sent in full to implementierung@gascade.de

WITHDRAWAL OF WORKING GAS VOLUME



Basic rules

- Automatically access to further storage accounts
- No access to storage accounts of the other market area
- „Mismatch“: nomination > sum of volume within storage accounts

Priorities in usage of storage accounts

Case 1a: Use of THE non-discounted transport capacity

priority	storage accounts
1	THE non-discounted "origin from the other market area"
2	THE non-discounted „origin from THE“
3	THE discounted

WITHDRAWAL OF WORKING GAS VOLUME



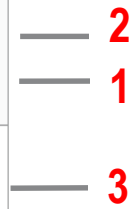
Example Case 1a: withdrawal of 100

„former“ storage level

S	T	Storage accounts	kWh
○	○	ND THE (GASCADE)	70 kWh (with 20 kWh bar chart)
	○	D THE (GASCADE)	80 kWh (with 80 kWh bar chart)
○	○	ND TTF (GTS)	0 kWh (with 0 kWh bar chart)

storage level „afterwards“

S	T	Storage accounts	kWh
○	○	ND THE (GASCADE)	0 kWh (with 0 kWh bar chart)
	○	D THE (GASCADE)	50 kWh (with 50 kWh bar chart)
○	○	ND TTF (GTS)	0 kWh (with 0 kWh bar chart)



Priorities in usage of storage accounts

Case 1b: Use of TTF non-discounted transport capacity

priority	storage accounts
1	TTF non-discounted „origin from the other market area“
2	TTF non-discounted „origin from TTF“

REGENT JEMGUM

WITHDRAWAL OF WORKING GAS VOLUME



Example Case 1b: withdrawal of 100

„former“ storage level

S	T	Storage accounts	kWh
○	○	ND THE (GASCADE)	0 i 0 i 0 i
	○	D THE (GASCADE)	0 i
○	○	ND TTF (GTS)	170 i 100 70

storage level „afterwards“

S	T	Storage accounts	kWh
○	○	ND THE (GASCADE)	0 i 0 0
	○	D THE (GASCADE)	0 i
○	○	ND TTF (GTS)	70 i 70 0





Priorities in usage of storage accounts

Case 2: Use of THE discounted transport capacity

priority	storage accounts
1	THE discounted
2	THE non-discounted „origin from THE“

WITHDRAWAL OF WORKING GAS VOLUME



Example Case 2: withdrawal of 100

„former“ storage level

storage level „afterwards“

S	T	Storage accounts	kWh
○	○	THE ND (GASCADE)	<input type="text" value="100"/> i <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 0 i
	○	D THE (GASCADE)	<input type="text" value="70"/> i <input checked="" type="checkbox"/> 70
○	○	ND TTF (GTS)	<input type="text" value="0"/> i <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 0



S	T	Storage accounts	kWh
○	○	THE ND (GASCADE)	<input type="text" value="70"/> i <input checked="" type="checkbox"/> 70 <input type="checkbox"/> 0
	○	D THE (GASCADE)	<input type="text" value="0"/> i <input checked="" type="checkbox"/> 0
○	○	ND TTF (GTS)	<input type="text" value="0"/> i <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 0