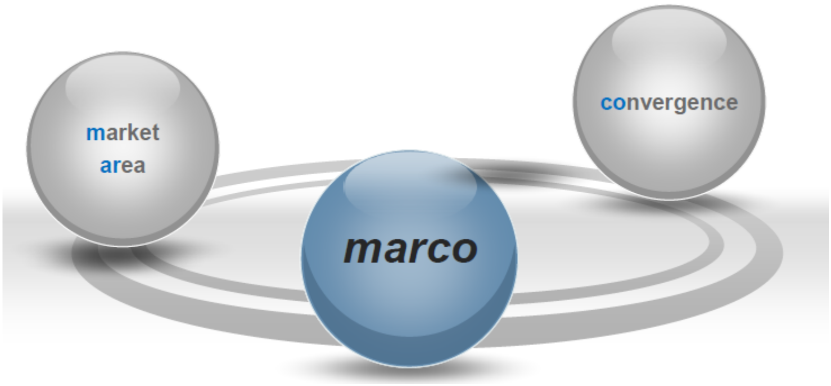
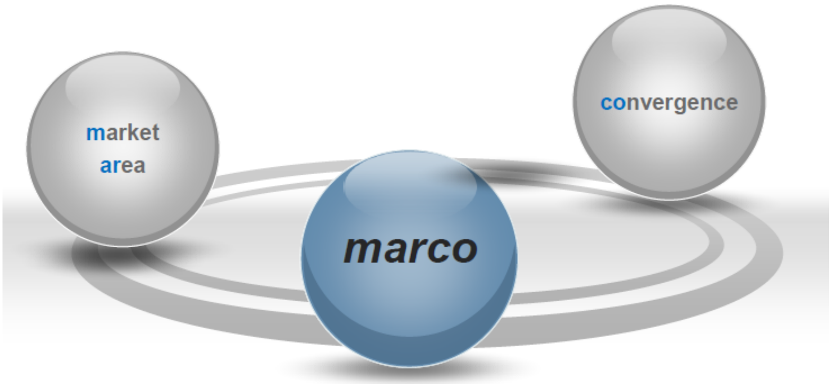


Market Dialogue

Duesseldorf, November 5, 2019



The Kap+ procedure

Oversubscription and buy-back scheme

- **Introduction**
- **The concept**
- **The products**

TSO concept for an oversubscription and buy-back scheme in the Trading Hub Europe market area

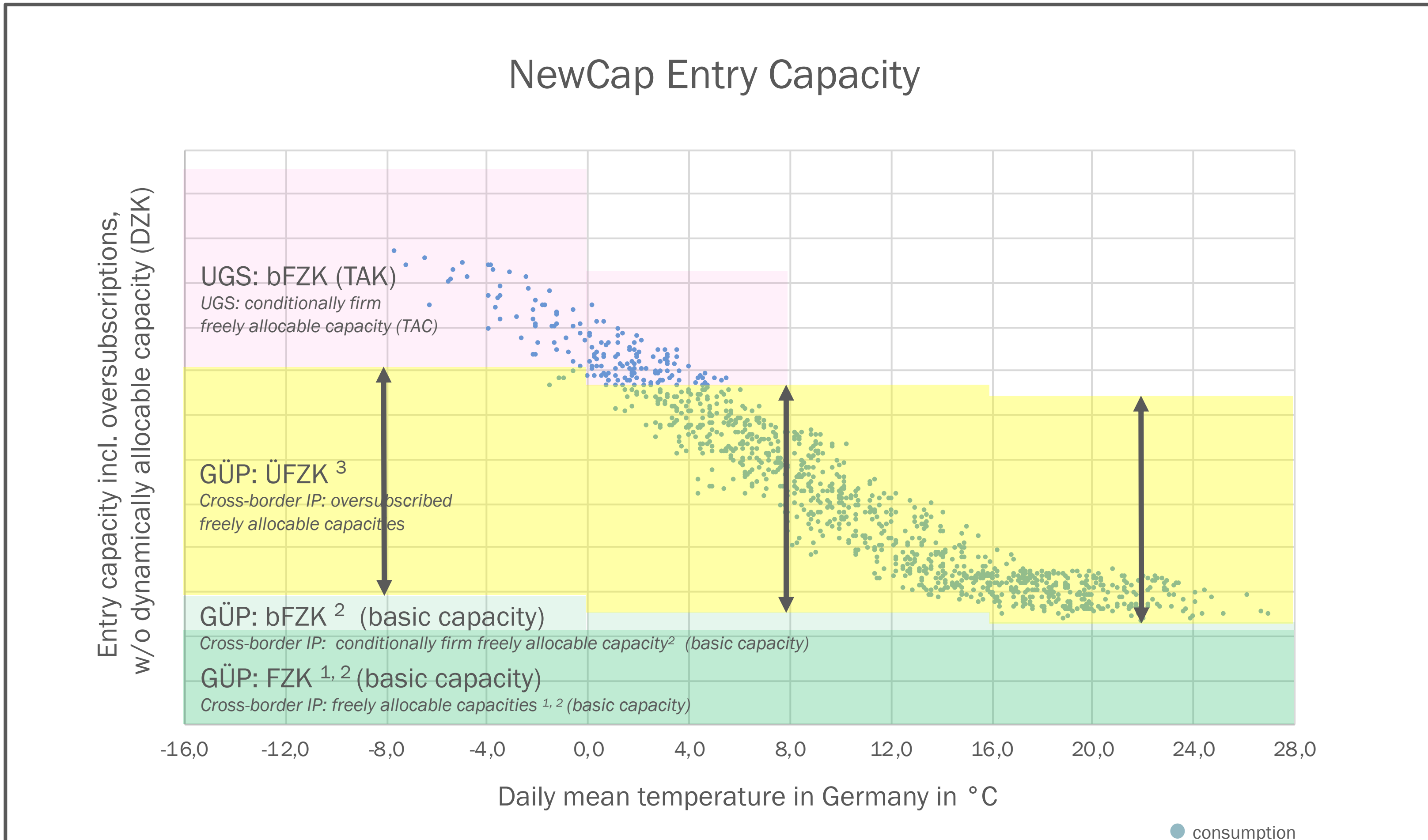
1. General

- Merger of the GASPOOL and NCG market areas will lead to a significantly reduced supply of firm, freely allocable entry capacity (*FZK*, *bFZK*) in the H-gas system
- Objective of the KAP+ procedure: introduce oversubscription and buy-back scheme to enable the TSOs to offer additional firm capacity in the German market area (Trading Hub Europe).
- The TSO concept is based on limiting the application period from 1 Oct. 2021 to 2. Oct. 2024 (test phase). The "test phase" will be used to
  - demonstrate the functionality and availability of market-based instruments (MBI)
  - obtain empirical values regarding the costs of MBI in real use, and
  - demonstrate the efficiency of the merger compared to the network extension alternative

2. Capacity offer – Process

- Approval by BNetzA of the technical capacity (basic capacity) pursuant to Section 9 (4) of the Gas Network Access Ordinance (GasNZV)
  - For each TSO, for each point
- Decision on the level of additional capacity offered by each TSO at its own discretion
  - up to a maximum of the capacity approved in the 2018-2028 NDP
- The amount of additional capacity offered depends on the individual circumstances of each entry point
  - Technical, contractual and regulatory framework
  - Assessment of the costs and risks associated with offering additional capacity
  - Analysed market demand in terms of amount, product quality and product duration
    - Consumption or sales-oriented approach
    - Orientation value: domestic German consumption with due consideration for its future development and corresponding additional requirements

2. Capacity offer – schematic representation



[1] in addition to the exchange of suitable capacities at today's market area IPs between GASPOOL and NCG
[2] capacities approved pursuant to Section 9 (4) GasNZV
[3] additional (oversubscribed) capacities, which depending on the network point, are also offered as oversubscribed freely allocable capacities (ÜbFZK)

3. Instruments to ensure additional capacity – Principles

- Trigger for MBI/buy-back demand:
  - Congestion between today's market areas GASPOOL and NCG
- Drivers:
  - Demand or trade-driven influencing factors
- MBI: mechanism
  - TSO network-wide, market area-wide (i.e. also in TSO networks in which the MBIs have not been contracted)
- MBI procurement: objective
  - Cost-optimised procurement of MBI products [MOL] across all TSO networks
- Allocation of costs to TSOs:
  - Use of key (MBI costs cannot be allocated and cannot be controlled by individual TSO)
  - Additional capacity is only offered if there is a balanced risk/reward ratio
    - ➡ no additional opportunities – no additional risks
    - ➡ if there are additional risks – no additional capacity offer

4. Determining the relevant network points

- Additional capacity only offered at entry and exit points where market area consolidation requires a reduction of technically available capacity:

At all **entry** points in the H-gas system

Cross-border IP	Storage facility *	LNG	Production

- No offer of additional capacity at the following points as there is no capacity reduction due to the market area merger:

Entry and exit points in L-gas system	Exit points in H-gas system

* This applies to storage facilities at which *FZK (for annual or seasonal capacities)* is offered. Other capacity products not covered by the oversubscription scheme, e.g. temperature-dependent *bFZK* , may possibly be offered

5. Marketing the additional capacity

Uniform capacity product, offered as part of the usual capacity allocation procedures

Basic capacity and additional capacity are subject to identical transport-relevant regulations (e.g. tariffs, contractual terms, operational handling)

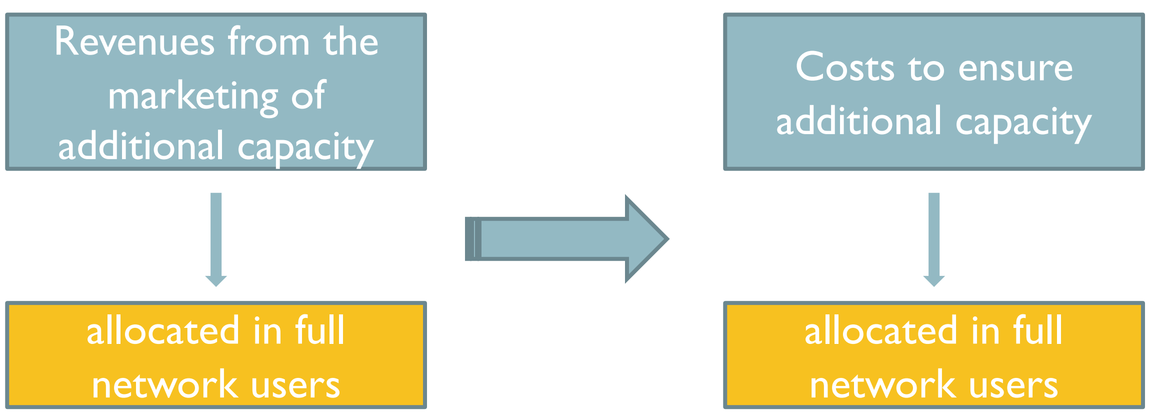
Offer can be made for all standard capacity products: year, quarter, month, day, intraday

Marketing horizon: one GY max.

Annual auction	Additional capacity offer
2020+2021	GY 2021/22
2022	GY 2022/23
2023	GY 2023/24

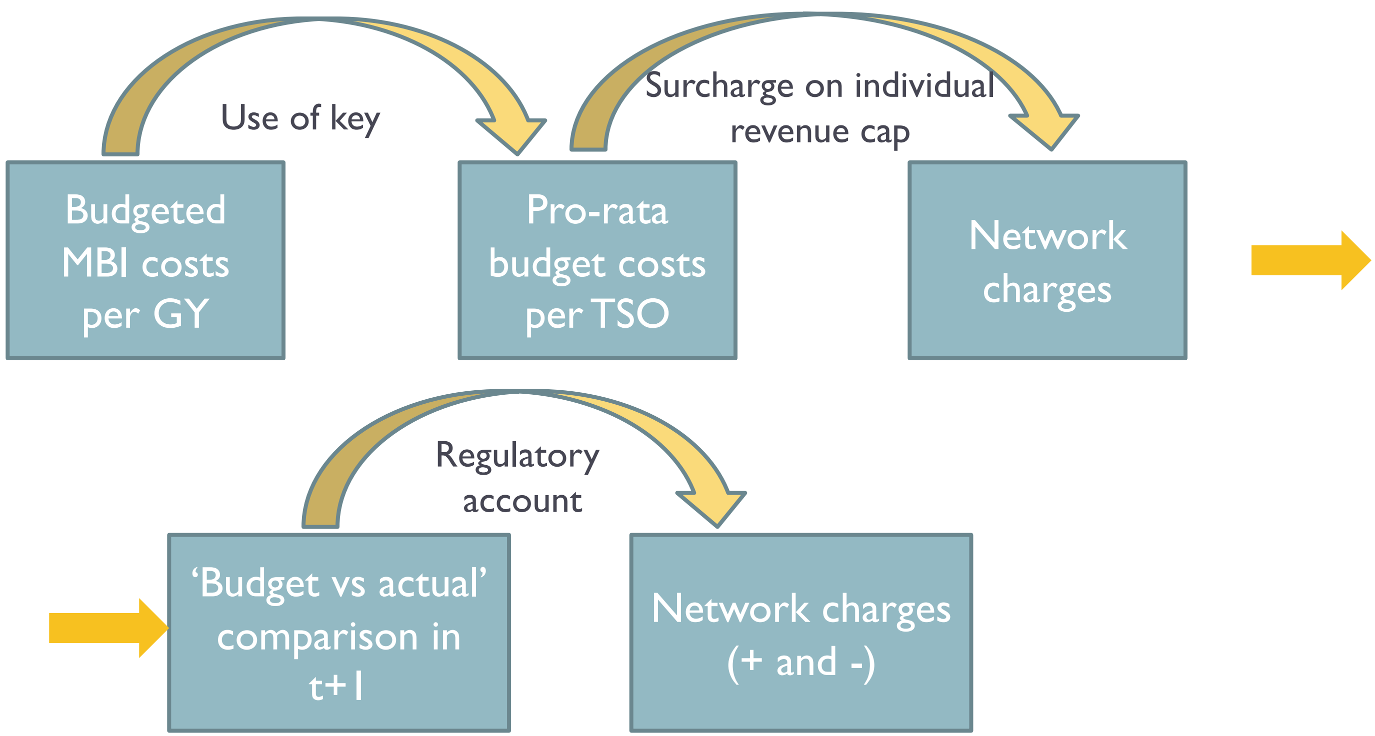
6. Distribution of costs and revenues among network users and TSOs (1)

- Section 2.2.2 (3) sentence 2 of CMP: Revenues and costs from oversubscription and buy-back scheme are shared between network users and TSOs
- Allocation of opportunities and risks between network users and TSOs shall be determined by the regulator
- KAP+: Network users take the full benefit from the revenues generated by marketing additional capacity
- Consequence: conversely, this means that all costs/risks must be allocated in full to the network users (no opportunities -> no risks)



6. Distribution of costs and revenues among network users and TSOs (2)

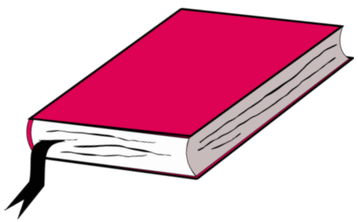
- In order to meet the requirements of Section 2.2.2 CMP while also taking account of the requirements arising from the MBI principles, the costs of the oversubscription and buy-back scheme have to be passed on nationwide by way of the network charges.



 5 November 2019

6. Review process

- Regular review of whether the network expansion alternative is the less expensive and more efficient option
- Review will be made as part of the NDP process



Annual report on the use and costs of MBI/buy-back

6. KAP+ and KOMBI as one unit

- Joint or at least interrelated decisions
  - Approval of the oversubscription and buy-back scheme [Ruling Chamber 7] and
  - Decision on the treatment of the resulting costs [Ruling Chamber 9]

  are an essential prerequisite for the offer of additional capacity!

- Given that the costs cannot be influenced by the individual TSO, it must be ruled out that the costs influence the efficiency value!

- Implementation: The costs associated with the oversubscription scheme are recovered in full and without any significant delay through the network charges

  As a result:

  - Basic prerequisite fulfilled:

    "no additional opportunities -> no additional risks"

  - There is a basis for offering additional capacity

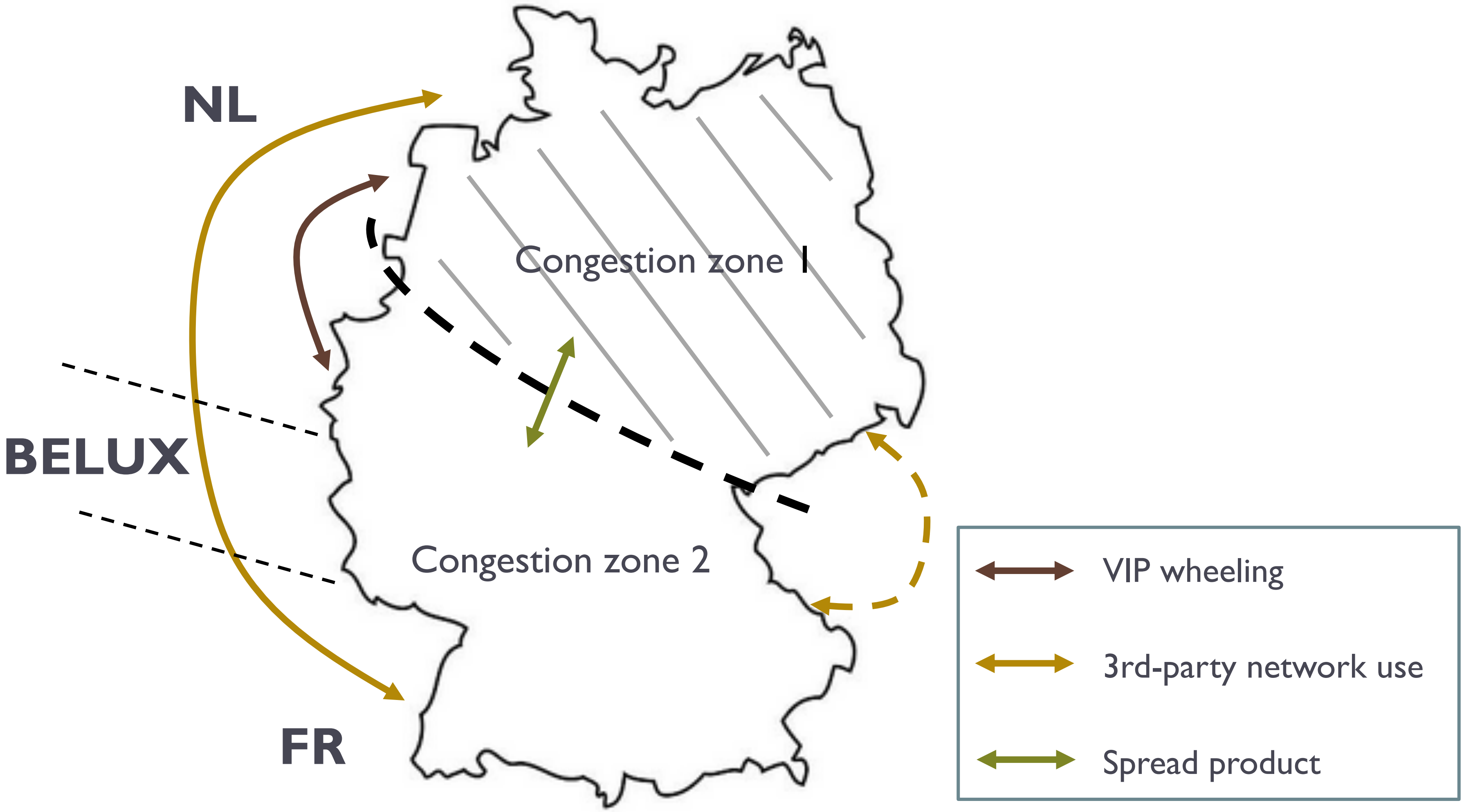
TSO instruments to ensure additional capacity

1. Instruments for securing additional capacity – MBIs and capacity buy-back

- Tools to remove congestion and merit order list
  - I. Free-of-charge network and market-related measures
  - II. Use of MBIs (VIP wheeling, third party network use, spread product)
    - Criterion for Merit Or List: cost of MBI products
    - Generally short-term instruments / capacity not held available
  - III. Last resort: capacity buy-back
- Price cap
  - Appropriate in order to prevent potential price abuse
  - But: What would be the right way to set a price cap?
- Suspension of short-term capacity marketing (entry capacity <u>only</u> in the overused zone, for as long as MBIs/buy-back scheme are used)

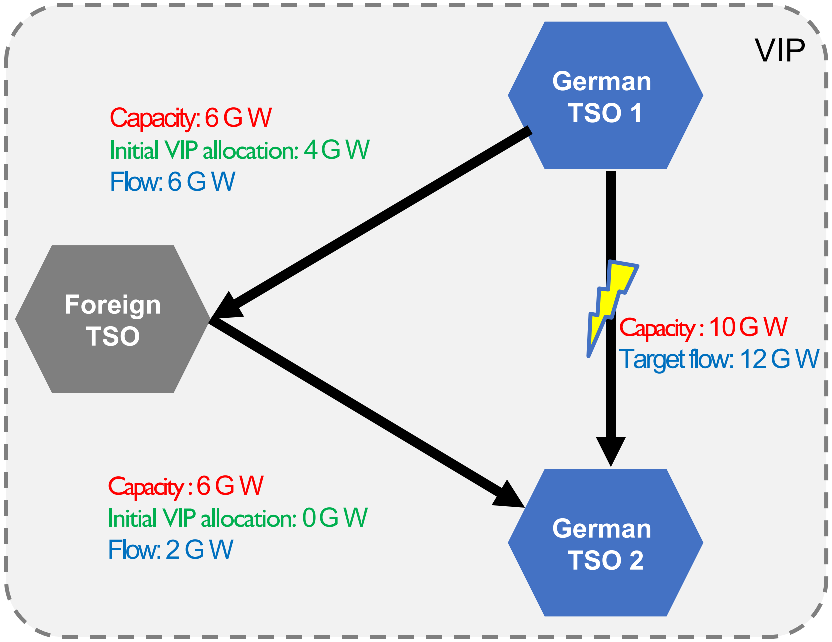
Use of MBIs: - Marketing restriction - Spread product: renomination restriction if there is an adverse network effect for the "MBI supplier"	Use of **buy-back scheme**: - Marketing restriction - General renomination restriction if there is an adverse network effect

1. Use of the different MBIs (example)



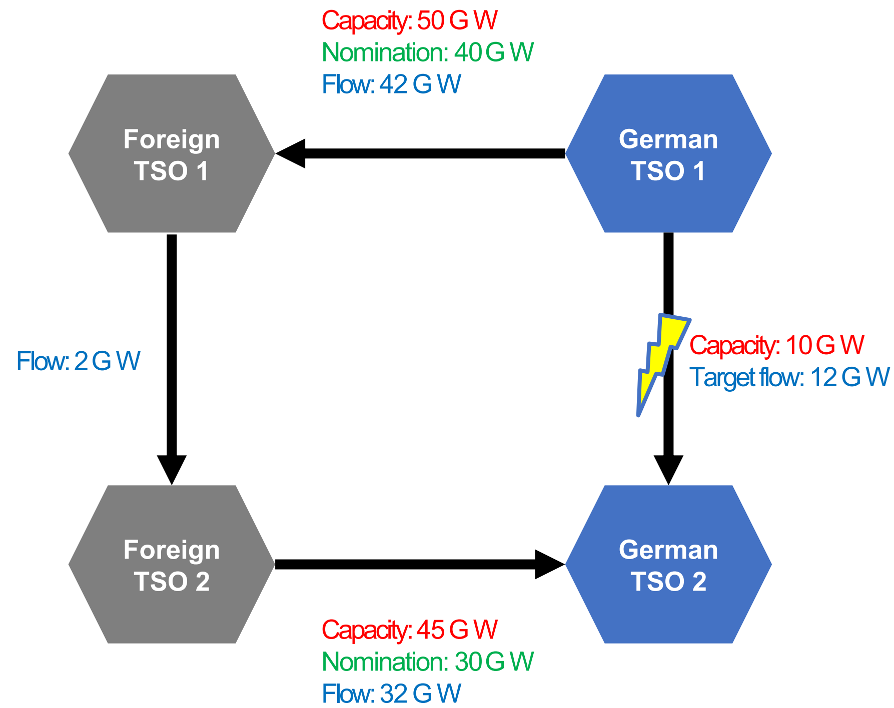
2. "VIP wheeling" design

- Chargeable (short-distance) transmission within a VIP via a foreign TSO
- Planned process:
  - THE informs VIP TSO
  - VIP TSO "nominates" wheeling (possibly on behalf of THE) with foreign TSO
  - Implemented by adjusting the initial VIP flow split
- Lead time: ≤ 2 hours
- Costs: Commodity charge when MBI is used



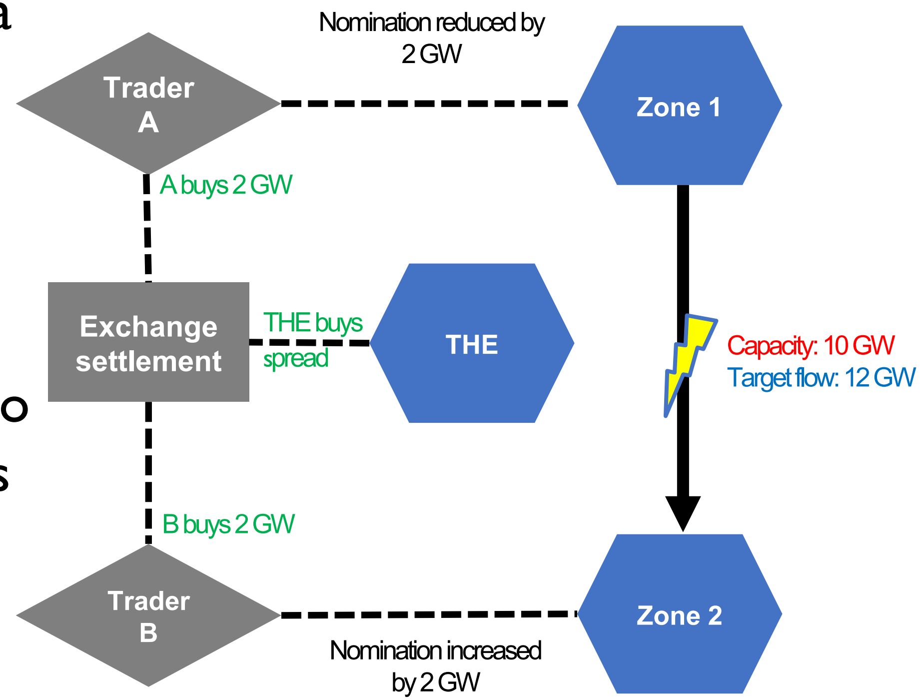
3. "3rd-party network use" design

- Fee-based transmission via adjacent neighbouring transmission systems
- Planned process:
  - THE books required short-term capacities with German TSOs / foreign TSOs involved
  - Implemented by nominating the relevant flows at booked points
- Lead time: ≥ 3.5 hours
- Costs: capacity fees



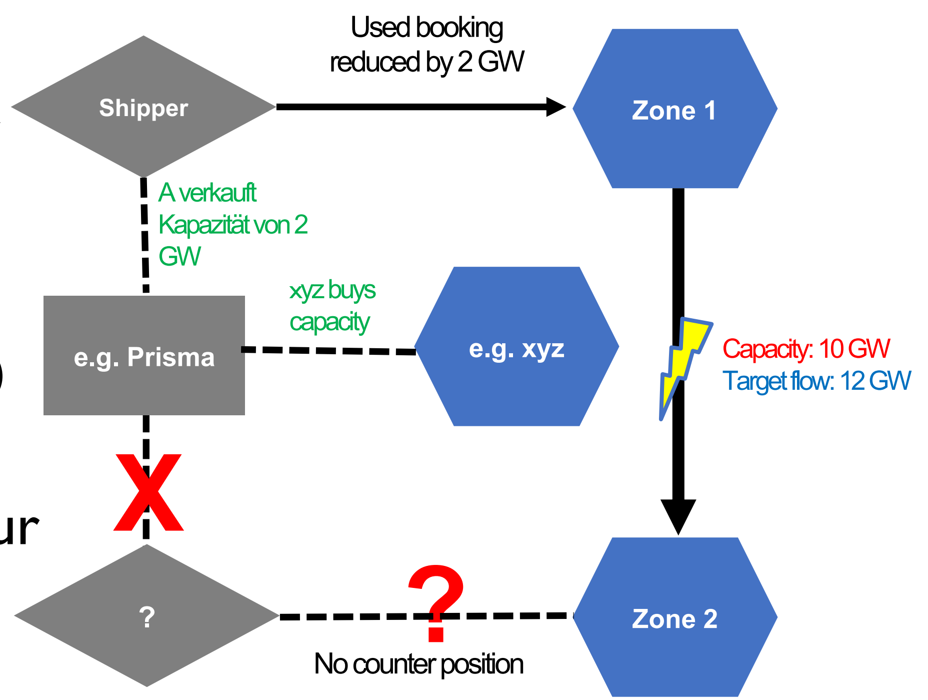
4. "Exchange-based spread product" design

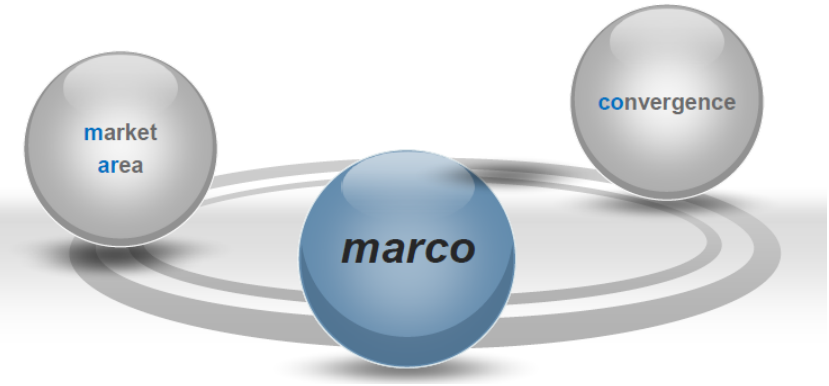
- Sale and purchase of gas upstream and downstream of congestion via order book on the exchange
- Planned process:
  - THE trades on the exchange
  - Trading participants are subject to physical performance restrictions
  - Penalty in case of breach of performance obligations
- Lead time: ≥ 3 hours.
- Costs: Exchange settlement price



5. "Capacity buy-back" design

- Buy-back only last resort
- Buy-back of nominated firm entry capacity in upstream zone at bookable points (VIP, cross-border IP, SAP)
- Planned process:
  - To be agreed (Who, How, Where)
- Effect on both congestion zones depends on BGM/Shipper behaviour
- Lead time: 2 to 4 hours
- Costs: Capacity costs as part of reverse auction





The implementation project of the market area managers

THE overview and outlook

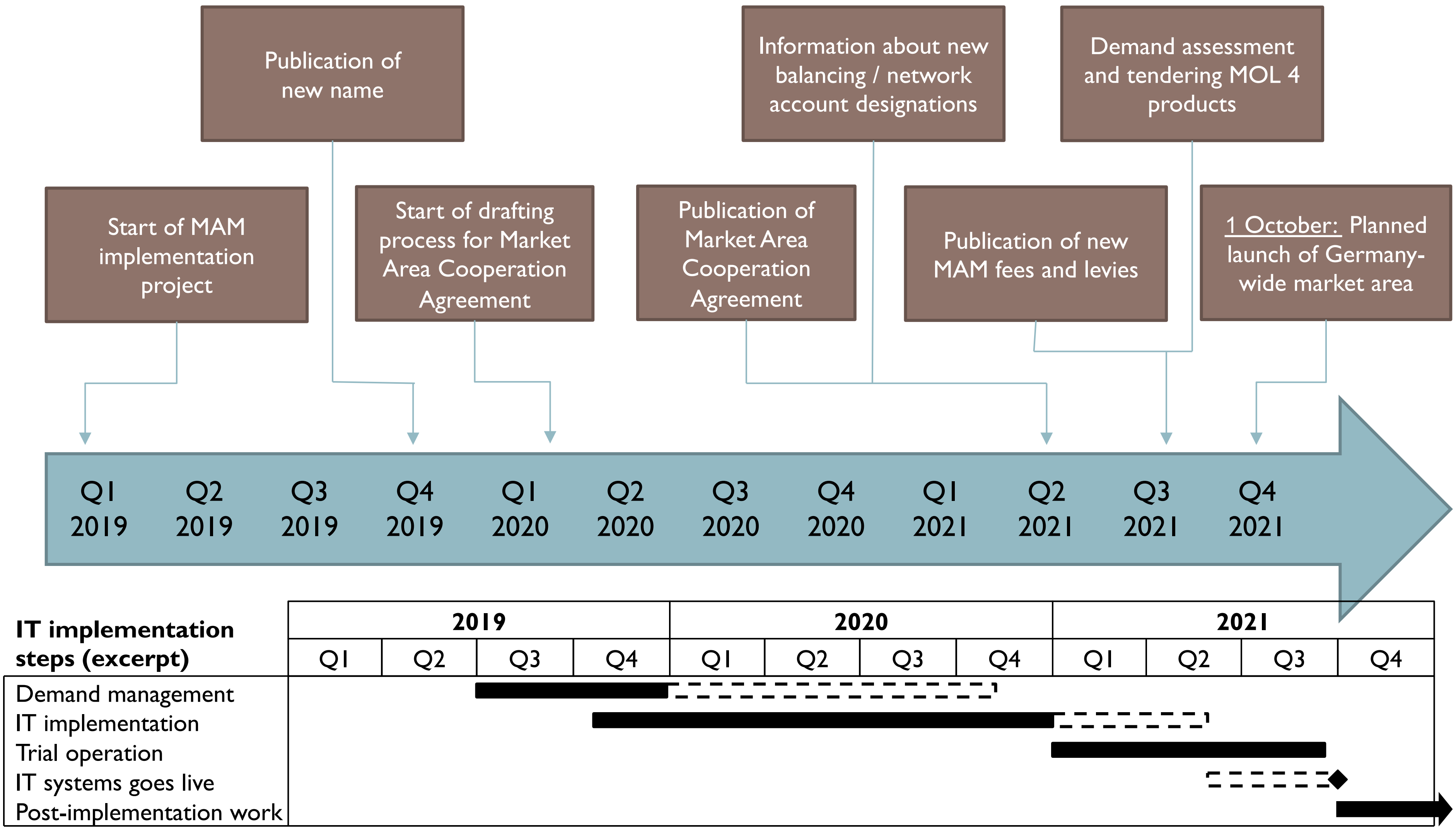
MAM Implementation Project Objective

- The aim of the MAM Implementation Project is to establish a fully functional MAM for the whole of Germany
  - Determine the future MAM process landscape, organizational structure, etc.
  - Implement IT modifications ("from system selection to data migration to enabling the Go Live ")
  - Coordinate and implement all changes ("from re-organisation to new business cards")
  - Coordinate and implement all legal adjustments
- The project will be managed jointly by GASPOOL and NCG

Today's status

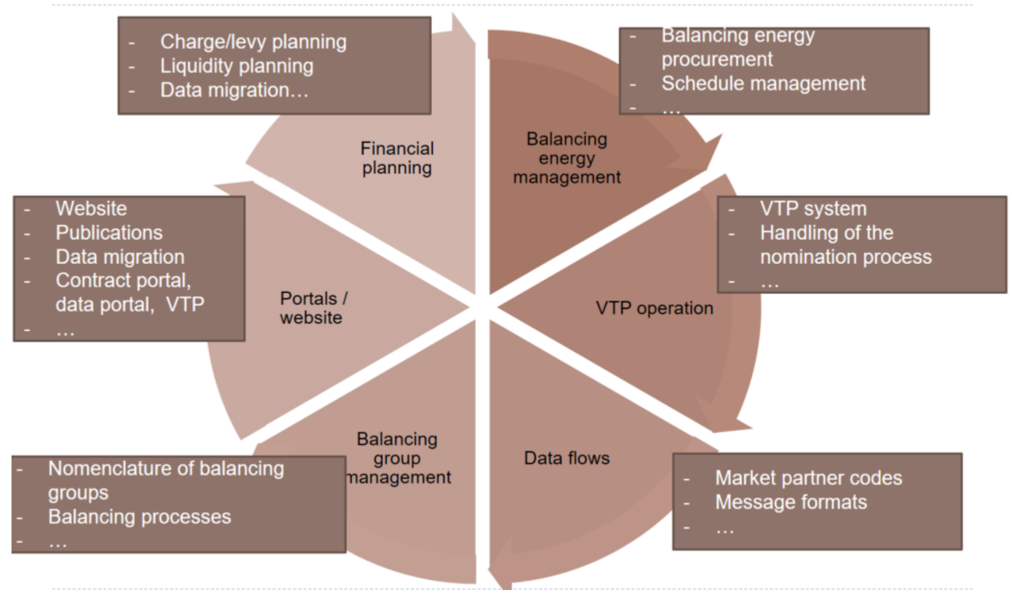
- Continue with both locations (Berlin and Ratingen)
- Areas of responsibility have been assigned to the two locations
  - Ratingen: Focus on finance, accounting, billing and data management
  - Berlin: Focus on central system balancing and VTP services (24/7) as well as customer support
- IT landscape has been outlined
- Implementation processes have started

Current schedule



Project structure and organisation

- The MAM implementation process is currently in the basic concept phase with the service providers involved
- The process draws on agile as well as classic PM methods
- All questions relating to external and internal processes are dealt with
- The early involvement of market partners, associations, committees and authorities is planned and implemented



Status and outlook

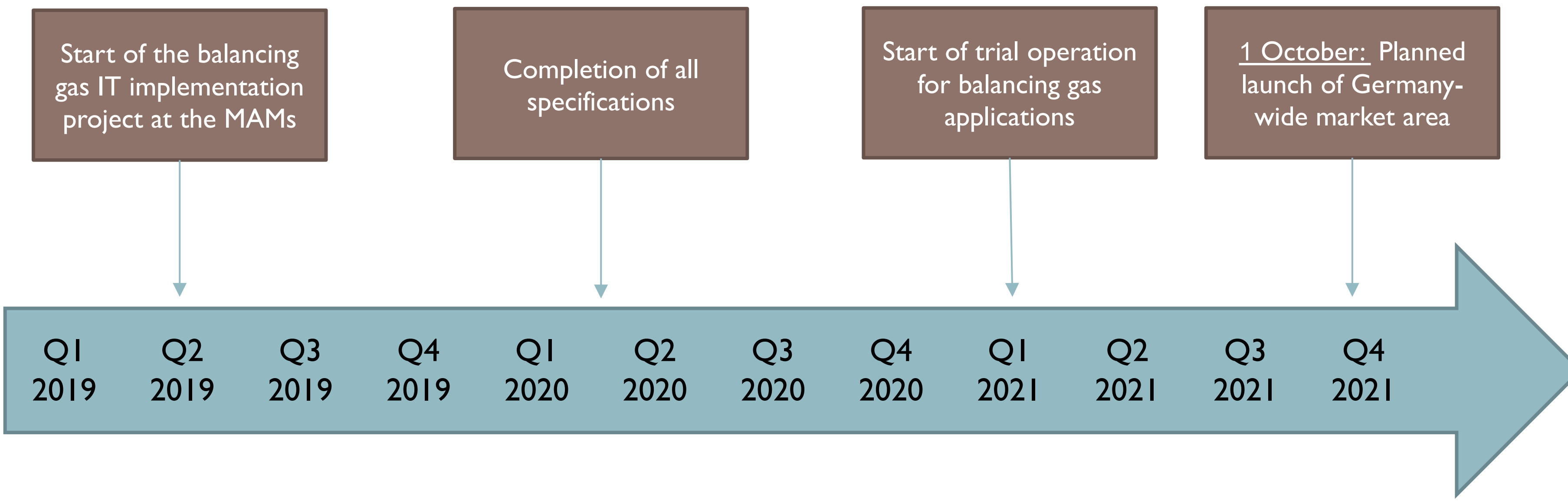
- Successful and target-oriented implementation will depend on several factors
  - Internal: structured project planning / efficient project organisation / sensible selection of IT systems / uniform concept phase / cross-project implementation phases, etc.
  - External: constant comparison of requirements with the market / comments from market area dialogues and individual discussions to be taken into account / alignment of process definitions with regulatory requirements etc.
- The early involvement of our market partners is a key element of the project implementation process
  - Through specifications and end-to-end tests later on
- Early communication about software changes in IT systems and their effects on our market partners is also one of the basic premises of this project

System balancing-related topics

General

- When the new market area is implemented, there will only be one single market area. For balancing gas products, this means that:
  - Global quantities can be made available in the entire market area.
  - There will be one L-gas product for all L-gas network areas.
  - There will be one H-gas product for all H-gas network areas.
  - Other balancing zones are currently under discussion.
- The new MAM will have a dispatching centre, which will handle all balancing gas volumes in the new market area.
- Prequalified balancing gas suppliers will probably not have to requalify for the new market area.

Rough timeline for IT implementation



Topics not related to IT implementation

- Topics that are already being addressed (examples):
  - Definition and selection of short-term balancing gas products
  - Definition and selection of long-term balancing gas products
  - Definition of balancing gas zones
  - Exchange order books from 1 Oct. 2021
- Topics to be addressed in the first half of 2020 (examples):
  - Preparation of general terms & conditions for balancing gas
  - Preparation of prequalification rules and documents
  - Preparation of information documents for balancing gas suppliers (e.g. implementation assistance, explanations on procurement model, etc.)
  - Preparation of product descriptions
  - General conditions for LTO tenders
  - Timing of the call for tenders
- Topics to be addressed in the second half of 2020 (examples):
  - Structure of the new System Balancing Report

Neutrality charges and fees

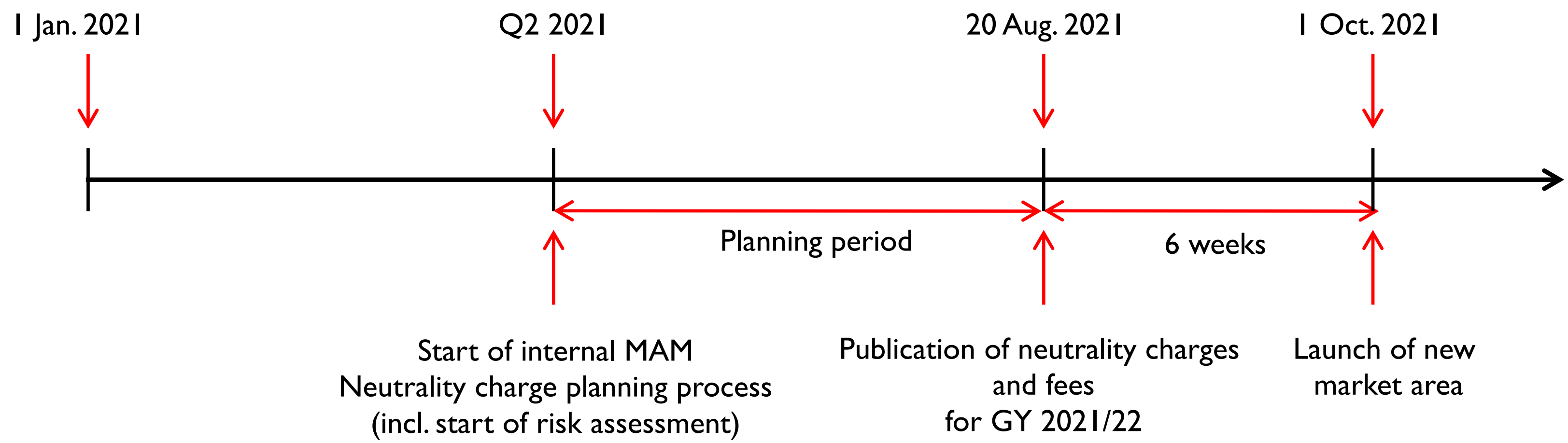
Comparison of current neutrality charges/fees/neutrality accounts

Neutrality charges / fees [GY 2019/20]		
in €/MWh	**NCG**	**GPL**
SLP neutrality charge	0.10	0.29
RLM neutrality charge	0.10	0.015
Conv. neutrality charge	0.00	0.005
Conv. fee (H→L)	0.45	0.42
VTP fee	0.0014	0.00116

Neutrality accounts [As at 06/2019]		
in €m	**NCG**	**GPL**
SLP	303	344
RLM	112	106
Konni	151	47

- **NCG and GPL will independently plan their neutrality charges and fees up to and including GY 2020/2021 according to GaBi and Konni gas.**

Market area merger: Timeline for planning



- Calculation of costs and revenues for forecast period
  - Forecast period based on preliminary data until 30 Sep. 2021
  - Forecast period based on planning data for period from 1 Oct. 2021 to 30 Sep. 2022
- Calculation of the liquidity buffer
  - Start of risk assessment from Q2 2021
- The amount of the charges will be determined by the aforementioned cost/revenue forecasts and the assumed liquidity buffer

Important aspects

- Neutrality charges and fees of the new MAM continue to be calculated in accordance with GaBi-Gas and Konni-Gas requirements
- Planning uncertainties:
  - Initial estimate of common costs and revenues
  - Initial estimate of common liquidity buffer (risk assessment)
- Definition and negotiation of a joint credit line

Electronic market communication and nomination regime

Market communication

- The aim of the MAM implementation project is to develop market communication for approx. 1,500 market partners in the current market areas for Trading Hub Europe.

Market communication

- Planned project implementation steps to achieve the objectives:
  - Provide a platform where the market partners can deposit their communication parameters for establishing market communication links before the market area merger
  - Set up and test the communication links before the Go Live, so that links tested prior to the changeover day can start to be used.
  - Provide additional possibility for submitting declarations and allocations via a portal
  - Implement all specifications in accordance with the currently valid publications of BNetzA, BDEW and DVGW

Market communication / VTP nomination regime

- The nomination process will be handled using the AS2 protocol
- In addition, nominations can be made via a portal

- Two format variants are offered for the nomination process:
  - NOMINT / NOMRES according to the EDIFACT formats published by DVGW
  - NOMINT / NOMRES in a bilaterally agreed EU XML format

Market communication

- Priority topics
  - Ensure that Trading Hub Europe's certificates are available in time
  - Determine the DVGW code of Trading Hub Europe
  - Determine the nomenclatures for the network accounts and balancing groups of Trading Hub Europe
  - Determine the VTP identifiers of Trading Hub Europe

Website and portals

Website

- Trading Hub Europe will comply with all regulatory and legal requirements under any publication obligations
- Website implementation project objectives
  - Like the current MAM websites, it is planned for the Trading Hub Europe website to contain further voluntary publications – over and above those required for regulatory and legal reasons – in order to provide the greatest possible transparency.
  - Market players should be provided with at least the information they can already access today.
  - The Trading Hub Europe website is to be developed with the aim of maintaining and – where appropriate - further developing the current standard

Portals (1/2)

- **One** comprehensive portal for Trading Hub Europe
- A customer portal for network operators and BGMs as well as a VTP portal will be integrated into this comprehensive portal.
- In addition, there will be a tendering platform for MOL 4 balancing products.
- The portals / the tendering platform are based on today's NCG solutions.
- Customers already registered with NCG and/or GASPOOL today will most probably not have to re-register

- **Customer portal:**
  - There will be one customer portal for network operators and BGMs for the whole German market area.
  - In the customer portal, BGMs and network operators will be able to access specific information, conclude and link balancing group contracts and submit allocation and declaration data.
  - The customer portal should provide at least the functionalities of today's portal

Portals (2/2)

- **VTP portal**
  - There will be a <u>one</u> VTP for the whole German market area.
  - The VTP portal should provide at least the functionalities of today's portals

- **Tender platform**
- There will be <u>one</u> tender platform for the entire German market area
  - The tender platform will be used to allow prequalified providers of balancing gas and/or balancing services to participate in the bilateral balancing gas market of the market area

Excerpt of open questions

- Will existing login details remain unchanged?
- Will the powers of attorney continue to be valid?
- When will the new portals be available?
- Will subscriptions have to be renewed?
- Will master data be transferred?
- How will the different authorisation logic in the portals be dealt with?
- Will the current MAM websites be continued temporarily?
- Will the "old data“ of the publications be kept?
- Where will "old data" of the publications be kept?
- When will the new website be available?
- …

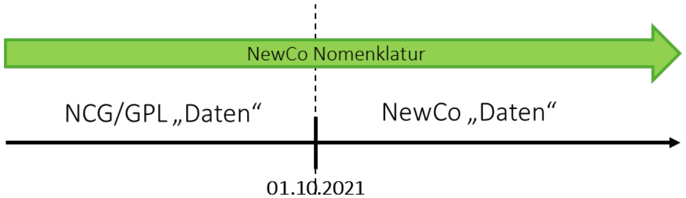
Network accounts and balancing groups

Network account management from Oct. 2021

Task and approach

- From 1 Oct. 2021 all network operator network accounts will be managed in the Trading Hub Europe market area. The nomenclature of the previous network accounts will be adjusted.
- Even after 1 Oct. 2021, some settlement processes relating to periods prior to 1 Oct. 2021 will still have to be handled between Trading Hub Europe and the network operators.
- The question to be answered is, how to deal with the old NCG and GPL network accounts. This decision will essentially depend on the compatibility of the variant with the network operator processes in the market area overlap (MAO).
- The MAMs' preferred solution will be agreed by the associations and incorporated into the Market Area Cooperation Agreement.

Implementation of network account: New account also applicable to old periods

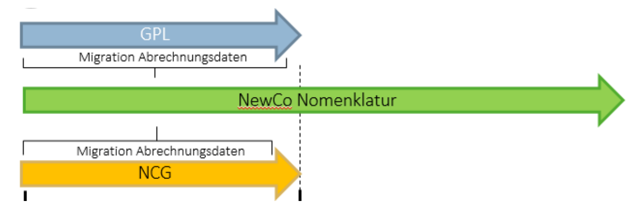


- Trading Hub Europe will introduce a new nomenclature for network accounts on 1 Oct. 2021.
- The existing network accounts will be migrated to the new nomenclature, so that all old periods will be processed via the new network account.

<u>Impact on network operators:</u>

- Up to and including 30 Sep. 2021, the network operators will use the old network account numbers (also for declarations for Oct. 2021).
- From 1 Oct. 2021, only the new nomenclature will be used for old periods up until 1 Oct. 2021 (correction notification, clearing, excess/shortfall settlement)

Special feature of MGO



- Both MAMs already have aggregation network accounts for excess/shortfall settlement and NA settlement for the network operators in the MGO
- From 1 Oct. 2019, THE will only continue with the aggregation network account and even old periods will only be handled using the aggregation network account.

<u>Impact on network operators:</u>

- Up to and including 30 Sep. 2021, the network operators will continue to use the old network account numbers (also for declarations for October 2021).
- From 1 Oct. 2021, only the new nomenclature will be used for old periods up until 1 Oct. 2021.

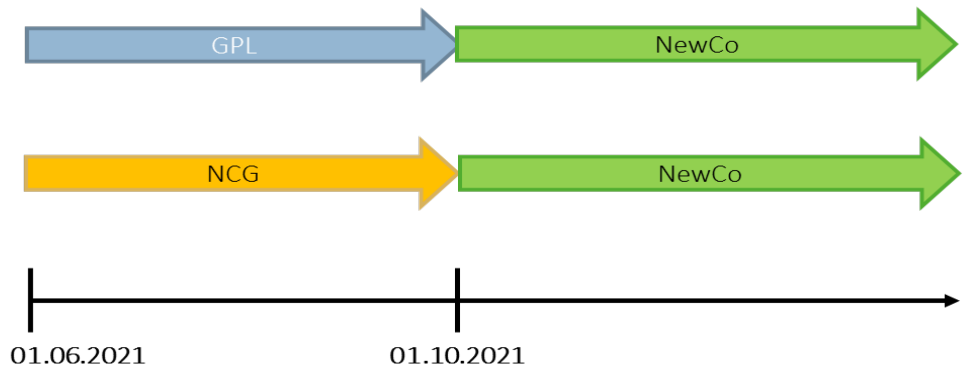
Network accounts and balancing groups

Balancing group management from Oct. 2021

Task and approach

- From 1 Oct. 2021, all balancing groups will have the Trading Hub Europe nomenclature. Balancing group contracts and contracts linking balancing groups will be concluded by Trading Hub Europe.
- It still needs to be clarified how the previous nomenclature will be converted to the new nomenclature and how the associated balancing group contracts and balancing account links will be handled. The special features of the biogas balancing group/settlement system will also have to be taken into account here.
- The MAMs' preferred solution will be agreed by the associations and incorporated into the Market Area Cooperation Agreement

Handling of balancing groups: Existing balancing groups receive new nomenclature



- All balancing group contracts remain in force and are transferred to Trading Hub Europe.
- The designations of the old balancing groups will be migrated to the new nomenclature.
- The contracts linking balancing groups will also remain in force and will be transferred.

<u>Impact on BGMs:</u>

- BGMs that operate in both market areas can decide for themselves which contracts they want to continue to manage.
- BGMs may have to adapt balancing account links (as necessary) → Obligation to connect H and L gas balancing groups

<u>Impact on network operators:</u>

- Use of the old BG designation up to 30 Sep. 2021 and thereafter for periods prior to 1 Oct. 2021.
- New BG may not have to be communicated via the GeLi Gas process, because a mapping list will be published.

Communication as part of the MAM implementation project

Review and status quo: Communication as part of the "marco" project

The "marco" project used various communication tools to ensure dialogue with the market:

- Project website www.marktgebietszusammenlegung.de
  - Launch in September 2018
  - Relevant information such as press releases, invitations to events, published "statements", information on the "KAP+" model are published here
  - all information is made available in German and English
- Market Dialogue events
  - Information on current progress and important milestones presented by process owners
  - Panel discussions with market participants / stakeholder involvement e.g. associations, BNetzA, etc.
  - Platform for discussion with the market
  - Market Dialogue in February and June 2019 with approx. 400 participants
- Save the date: next Market Dialogue on 12 February 2020 (Day 2 of E-world)

Outlook: Communication as part of the MAM implementation project

- Associations: The MAMs will involve the associations' bodies at an early stage on all aspects that have a significant impact on market participants in order to jointly develop solutions, create transparency and facilitate preparations for the implementation (e.g. dealing with network accounts and balancing groups). All essential questions will ultimately be addressed in the so-called Market Area Cooperation Agreement.

- BNetzA: The MAMs regularly exchange information with BNetzA, report on project progress and agree on questions relating to the GaBi definition (levies, use of balancing gas/balancing services, etc.)

- NEW – Customer Events from 2021: The MAMs are planning to hold a series of customer-specific events in spring 2021 to present the details of the implementation project.

Many thanks for your attention!