



Principles of Entry-Exit Tariff Setting Project Commissioned by E-Control

Presentation of Final Results

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Agenda

- Introduction
- Entry-Exit Model
- Capacity Products
- (Calculation of) Network Tariffs
- Plausibility Check of GCA's Capacity Model
- Tariff Model Results

Project Background

The revised EU legal framework requires changes to the Austrian network access model.

Background

Project Background:

- Regulation (EC) Nr. 715/2009 stipulates the introduction of entry-exit tariff systems and abolishes tariffs calculated on the basis of contract paths
- EU legal requirements have been transferred into Austrian law with the amendment to the Natural Gas Act in December 2011
- KEMA was commissioned to develop recommendations on the principles of entry-exit tariff systems with regards to application in Austria
- KEMA's recommendations are based on theoretical and conceptual considerations, international experience and an analysis of the status quo in Austria

Project Objective

Recommendations for the fundamental design of an entry-exit tariff regime in Austria.

Objective

Objective:

- The study's primary objective is a comprehensive analysis of the principles of entry-exit tariff setting with regards to implementation in Austria and, based on this analysis, to develop recommendations for the design of the future Austrian entry-exit system

Methodology:

- Assessment of experience from a sample of six countries, selected together with E-Control (BE, CZ, DE, FR, IT, SK)
- Assessment and review of principles of entry-exit tariff setting
- Recommendations for implementation in Austria

Austrian Legal Framework

EU legal requirements have been transferred in Austrian law with the amendment to the Natural Gas Act in December 2011.

Network Access Model

- Entry and exit capacities can be booked separately (Sec. 31, 2)
- Free access to the virtual trading point (Sec. 31, 3 and Sec. 68, 1)

Tariff System

- Network charges based on booked capacities (Sec. 74, 1)
- New tariff system as of 1.01.2013 (Sec. 170, 5)
- Transfer of existing contracts into the new system (Sec. 170, 6)
- Firm and interruptible capacities, at least based on annual, monthly and daily basis (Sec. 36, 1 and 2)

Austrian Legal Framework

EU legal requirements have been transferred in Austrian law with the amendment to the Natural Gas Act in December 2011.

Non-Standard Tariffs

- Tariffs for interruptible capacities, capacities with limited allocability and load flow commitments (Sec. 74, 1)
- No substantial price premium for short-term products (Sec. 74, 1)

Measures to Increase Capacity (Sec. 35)

- Load flow commitments and capacities with limited allocability (Sec. 74)
- Reasonable and non-discriminatory tariffs

Primary Capacity Allocation

- Joint on-line capacity allocation platform per market area (Sec. 39)
- Backpack principle (also) for entry capacities into the market area (Sec. 40, 1)

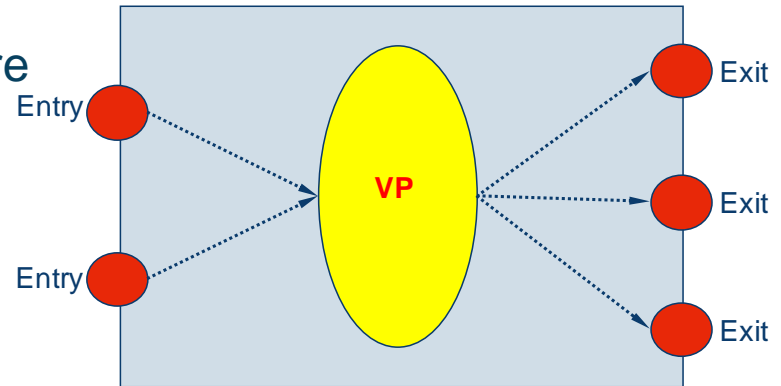
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Entry-Exit Tariff System

Basic requirements and characteristics.

- Given the existing legal framework, there is no alternative to an entry-exit tariff system
- Trade liquidity and economic efficiency are promoted through flexible and independent booking of entry and exit capacities and free access to the virtual trading point, as gas flows can react immediately to market price signals
- Tariffs should be ideally cost-reflective, non-discriminatory and provide efficient (scarcity) signals
- Impact on competition and the transfer from the old system to the new are also important



Integration of Networks

Transmission networks are to be integrated in market area East.

- The integration of the transmission networks in market area East is required by the Natural Gas Act 2011
- Definition of market areas should be based primarily on the existence of structural physical constraints in the networks
- Larger market areas foster market entry and liquidity at virtual trading points
- Larger market areas may lead to a reduction in freely allocable capacities
- Austrian approach to integrate networks into market areas reflects the European trend towards larger integrated market areas
- Integration of networks requires clear definition of internal procedures and responsibilities between TSOs

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Capacity Products

Firm and interruptible capacities should be offered on a long and short-term basis.

- Minimum requirements are stipulated by Regulation (EC) No. 715/2009 and the Natural Gas Act 2011
- In principle, capacities have to be offered as firm and freely allocable
- If firm capacities cannot be offered (anymore), capacities have to be offered on an interruptible basis; also contracted but unused capacity has to be offered at least on an interruptible basis
- Under certain conditions (i.e. if technically required) capacities with limited allocability can be offered, however this may be problematic for competition
- ACER FG CAM stipulates that bundled capacity products should be offered at cross-border points

Interruptible Capacity

Typically all other “non-standard“ capacities are defined by their relation to the “standard” firm annual capacities.

Options

1. Interruptible capacity can be offered as uniform product
2. Interruptible capacity can be offered divided into classes with a different probability of interruption

Recommendation

- If a larger amount of interruptible capacity is sold, differentiation should be made between products with a different probability of interruption

Rationale

- The risk to be interrupted is more transparent to network users
- With a more granular differentiation, the capacity tariff can reflect the interruption risk more accurately

Long and Short-term Capacities

Typically all other “non-standard“ capacities are defined by their relation to the “standard” firm annual capacities.

Options

1. Only capacities not contracted and those where availability can only be ensured short term are offered as short- term capacities
2. A fixed percentage of firm capacities can be reserved to be offered as short-term capacities

Recommendation

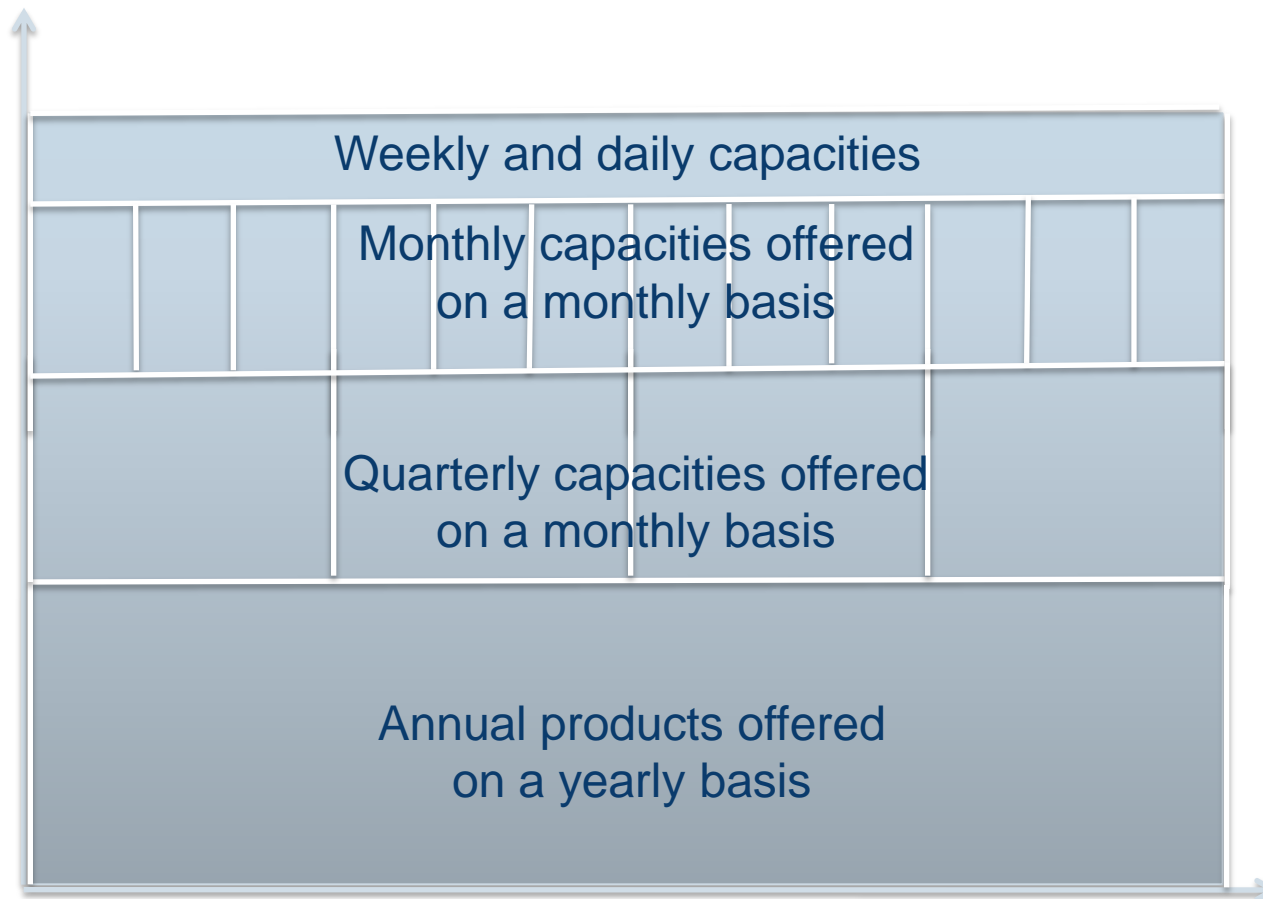
- Reserving a fixed share of firm capacities is highly recommended
- Harmonisation with adjacent market areas and network operators should be sought

Rationale

- The availability of short-term capacity products allows market parties to react flexibly to market signals
- Without reserving a fixed share of capacities, contracting long term capacities could reduce the availability of short term capacities to be offered
- Required by ACER FG CAM

Long and Short-term Capacities

Capacity allocation mechanisms should be aligned to contract duration (e.g. with respect to lead times).



- ACER FG CAM also mentions intraday capacity services
- ACER FG CAM stipulates a minimum share of 10% for durations of less than one quarter
- Shares should be aligned between adjacent market areas

Tenders for Load-flow Commitments

Load-flow commitments (LFC) can be tendered in different qualities. They support the network stability.

Options

1. Request for a longer-term firm product vs. short-term product
2. Request for a firm product vs. an optional product to call LFC
3. Confirmation to remove local congestion vs. increase in total network capacity

Recommendation

- Use of LFC recommended
- Evidence of necessity and appropriateness of LFC must be provided
- Small tranches, as short-term as possible, as long-term as necessary
- In the mid-term integration with balancing platform

Rationale

- Takes into consideration Natural Gas Act (measures to increase capacity)
- Particularly local provision of LFC can be characterised by small market size
- Competitive tenders lower total cost

Free vs. Limited Allocability

Generally, capacities have to be offered as freely allocable; however a limitation of free allocability may increase the total capacity.

Options	Recommendation	Rationale
<ol style="list-style-type: none">1. A certain proportion of capacities may be designated as point-to-point (limited free allocability)2. All capacities are assigned as freely allocable3. Limitations can be disallowed due to anti-competitive effects	<ul style="list-style-type: none">• Capacities should be designated as freely allocable• If necessary for the purposes of total capacity increase, capacity with limited free allocability may be offered• Grandfathering of capacities must be non-discriminatory and efficient• The effect on capacity increase should be proved	<ul style="list-style-type: none">• The effect on capacity increase is likely to be low compared to LFC• Disadvantage for gas trading among member states as well as for capacity and balancing market• Limitation of free allocability does not concur with the principle of the entry-exit model

Auctions of Primary Capacities

The design of capacity auctions should ensure as far as possible efficient price discovery and a complete market clearing.

Options	Recommendation	Rationale
<p><i>Non market-based</i></p> <ol style="list-style-type: none">1. First come, first served2. Pro rata <p><i>Market-based (auctions)</i></p> <ol style="list-style-type: none">3. Explicit vs. implicit4. English vs. Dutch5. Open vs. closed6. Single capacities vs. aggregated7. Pricing mechanisms8. Auction calendar9. Reserve price	<ul style="list-style-type: none">• Design in line with KARLA Gas (D)• Explicit Price-Volume Auction• Joint auctions at points with joint pipeline ownership• For long-term products the reserve price should correspond to the regulated tariff• Day-Ahead Auctions – UIOLI principle should be considered	<ul style="list-style-type: none">• Clear signal for network expansion• Harmonisation at cross-border points• Auctions are in line with Regulation 715/2009 (EC) and Natural Gas Act• Corresponds to stipulations of ACER FG CAM

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Major Principles of Cost Allocation and Tariff Setting

Network charges are set for the whole market area using the cumulated capacities and costs for all TSOs.

Options

1. Integrated entry-exit zone (cost allocation for the whole market area)
2. Separate entry-exit zones (separate cost allocation for each network)

Recommendation

- Integrated entry-exit Zone
- Cost allocation based on the total costs
- Network charges for the entry and exit points in the market area
- Revenue collection by network operators
- Inter-TSOs compensation scheme

Rationale

- Cost allocation and price setting based on uniform approach applied simultaneously for the market area, no fragmentation
- Consistent system for the whole market area
- Adequate price signals
- GWG sets out provisions with respect to reconciliation

Tariff Setting / Tariff Structure

Network charges are calculated for entry and exit points using the contracted capacities.

Options

1. Capacity charges
2. Commodity charges (for example for fuel gas)
3. Combination of commodity and capacity charges

Recommendation

- Capacity charges for the respective products
- Capacity charges can be differentiated by:
 - Duration of booking time
 - Probability of interruption or product quality

Rationale

- Network costs are mainly fixed and caused by capacity needs
- Complete transparency for network users
- Used in international practice
- In compliance with the requirements of GWG

Tariff Setting / Cost Allocation

Network charges are allocated based on locational pricing.

Options

1. Average cost
2. Long-run marginal cost (incremental cost)
3. Hybrid approaches (e.g. combination of average cost and proxies for long-run marginal costs)

Recommendations

- Hybrid approach
- Cost allocation in two stages:
 1. Locational pricing;
 2. Based on capacity products
- Use of allocation keys based on asset replacement costs

Rationale

- Cost reflectivity and price signals
- Higher transparency
- Steering complexity and transaction costs
- Taking data availability into consideration
- Minimizing the impact of the changes in the tariff setting system

Tariff Setting / Short-term Capacities

If applied, factors for seasonal adjustment should be 1 when added up to terms of one year.

Options

1. Tariffs independent from contract terms
2. Application of seasonality factors (potentially different tariffs depending on season)
3. Differentiation between tariffs of different contract terms (potential surcharge for shorter contract terms and discount for longer contract terms)

Recommendation

- We do not recommend a seasonality factor in the first instance
- If implemented, seasonality factors must not add up to more than 1
- They calculation of seasonality factors should reflect utility patters of network users
- Cross-period adjustment to demand conditions

Rationale

- Transit flows lower seasonal demand patterns
- The suggested approach prevents from high prices for capacity (total = 1), if seasonal factors are applied
- Improves the signal effects of the auction reserve prices
- Compliant with legal framework

Uniformity of Network Charges

The entry-exit model design is based on a combination of nodal and zonal network charges.

Options

1. Individual nodal prices
2. Uniform charges for the whole area
3. Geographical price zones
4. Combined approach

Recommendations

- Combined approach
- Nodal entry and exit charges at national borders
- National exit zone with uniform charges
- Exit zone with uniform charges for storage
- Entry zone with uniform charges for production

Rationale

- The network topology and characteristics of network segments are considered
- Minimizing the impact of changes in the tariff system
- Consideration of competition neutrality
- Acceptance

Tariffs for Domestic Exit

The exit capacity into distribution grids for domestic offtakes will be priced uniformly.

Options

1. Individual nodal prices
2. Uniform charges for the whole area
3. Geographical price zones
4. Combined approach

Recommendation

- Uniform charges for the national exit zone
- Existing arrangements need to be taken into account when determining the tariff level

Rationale

- Prevention of structural irregularities
- Maintaining price stability in the zone
- Domestic consumption is significantly lower compared to the transit volume
- Noticeable demand-response is not to be expected in practice
- Approach is used internationally

Connection Charges for Storage

Network operators incur costs for new connections or increasing the capacity of existing connections.

Options

1. Shallow approach (directly attributable costs without network reinforcement)
2. Deep approach (directly attributable costs including network reinforcement)
3. Socialisation (no allocation of costs)
4. Netback-approach (decoupled from cost; based on product offers from alternative storage operators)

Recommendation

- Network connection charges based on shallow approach
- Payments for network charges integrated in storage prices

Rationale

- Reflects economic causality by aligning charges with the directly attributable costs
- Limits the effects on the competitive position of a storage operator
- Simple and transparent

Network Charges for Storage

Network charges for exit into storage are charged based on the contracted capacity booked by the storage operator.

Options	Recommendation	Rationale
<ol style="list-style-type: none">1. Separate tariff<ol style="list-style-type: none">a. Tariff corresponds to exit tariff from TSO levelb. Exit tariff specifically designed for each storage2. Uniformity<ol style="list-style-type: none">a. Uniform tariffb. Different tariff acc. to storage locations	<ul style="list-style-type: none">• Specific exit tariff for storage injection• Uniform tariff at all storage points• Tariff takes into consideration the benefits of storage on the whole network	<ul style="list-style-type: none">• Directly attributable costs for grid connection is already included in the connection charge• Equal impact on the competitive position for storage sites• Simple and transparent• Compatible with capacity-booking by storage operator

Inter-TSOs Compensation

The compensation aims to account for the differences between the allowed and actual revenue whereas the latter is collected by the individual TSOs using entry-exit charges calculated for the whole market area.

Options

1. Integrated accounting (revenue collected centrally and distributed automatically by the capacity marketer, capacity platform and centralised billing for the market area)
2. Individual accounting (revenue goes directly to the TSOs, revenue reconciliation based on inter-TSOs compensation)

Recommendation

- Individual accounts with revenue reconciliation based on inter-TSOs compensation
- The compensation takes into account the differences between the allowed and actual revenues
- Monthly payments to avoid the negative impact on the liquidity of the operators (plus final settlement at the end of the year)

Rationale

- Compatible with the core functions of the TSOs (in particular billing and collecting revenue from network services), and the legal framework in Austria
- Enhanced acceptance by the TSOs, and no potential for discrimination
- Existing experience in the electricity sector (network price zones)

Tariffs for Capacities with Limited Allocability

Capacities with limited allocability have to be considered as inferior products.

Options

1. A fixed discount to freely allocable capacity applied to the reserve price due to the lower product quality (since access to the VHP and to points outside of the specified connection only on an interruptible basis)

Recommendation

- The discount should reflect the value of the capacities with limited allocability (perspective of network user)
- The discount could be low according to the preferences of network users

Rationale

- Capacity with limited allocability is to be classified between firm capacity with free allocability and interruptible capacity
- The allocation of capacity with limited allocability to incumbent shippers at favorable terms may disadvantage other network users

Compressor Energy Costs

Compressor energy costs fluctuate due to prices and quantities - uncertainty in the regulatory account.

Options

1. Setting fixed cost allowance over the regulatory period
2. A share of the allowed costs are adjusted and the rest not
3. Complete annual adjustment

Recommendation

- Forecast of energy for the regulatory period
- Incentives for reducing consumption
- Market based hedging of baseload requirements over regulatory period and fee setting
- Recognition of the procurement cost of the residual volume as non-controllable

Rationale

- Reduced risk for operators accounts
- Facilitates optimisation of the compressor operations
- Also common in other countries

LFC Tariffs

Flow commitments help to increase network capacity and alleviate bottlenecks; they may be remunerated by the network operator.

Options

1. Regulated capacity charge in conjunction with the booking of entry and exit points
2. Tenders of pre-determined products at entry or exit points
3. Procuring of short-term (local) deliveries similar to balancing energy

Recommendation

- Remuneration with capacity charge in accordance with 1. only where combinations between different points enhance the overall capacity
- Tender pursuant to 2. depending on probability and duration of the congestion
- Compensation based on energy price only

Rationale

- Payments for capacity charge only when positive effects on tariffs/capacities are demonstrated
- Regulation of the action acc. to 2 is difficult. Remuneration based on energy price should therefore set a reference to the market value for flexibility

Use of Surplus Revenues from Auctions

Revenues should be used to remove physical bottlenecks. They are closely related to the TYNDP.

Options

- Surplus revenues must be used for
1. Investments in network expansion, when physical congestion exists => TYNDP
 2. Efficient congestion management based on capacity buy-backs by network operator.
 3. Reduction of network tariffs

Recommendation

- Cumulate the surplus revenue in financial reserves and invest them in network expansion when physical and long-term congestion
- Buy-back capacity if the expansion appears to be too expensive
- Net revenue: reduction of exit rates

Rationale

- Auction revenue surpluses indicate capacity shortage which should be addressed in the long-term
- An incentive for efficient congestion management requires choice of means
- Commercial constraints must be addressed with UIOLI methods

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Plausibility Check GCA Capacity Model

Evaluation of the methodology and assumptions proposed by GCA for the determination of freely allocable capacities.

GWG

- Identification of the requirements set out in the Natural Gas Act regarding the determination of transport capacities in an entry-exit-system

GCA Methods

- Slide set of Gas Connect Austria (GCA) / WECOM on a proposed methodology for network capacity assessment
- Bilateral interactions with GCA
- GCA response to KEMA's interim report

Checks

- Evaluation of the methodology put forward by GCA
- Identification of points for discussion

Requirements GWG

The gas law sets some essential requirements for the approach to determining network capacities.

Relevant definitions in §§ 14, 34 und 35

§14: **Duties of the Market Area Manager**, amongst others:

- Section 1: Ensuring non-discriminatory access to the Virtual Point (VP) and appointing an operator of the VP.
- Section 4: Establishing a uniform calculation methodology for the determination of the entry and exit capacities (according to § 34 und 35); The methodology needs the approval of the regulator.
- Section 6: Providing a 10 year network capacity plan based on flow scenarios, in cooperation with the TSOs and distribution area managers.

Requirements GWG

The gas law sets some essential requirements for the approach to determining network capacities.

§34: Determination of capacity

- Section 2: Transmission system operators and distribution area managers should cooperate to calculate and provide technical capacities in a uniform approach and aim to maximize the capacity over the connected networks. The capacity calculations should be based on state of the art flow simulations.

§35: Increasing available capacity

- Section 1: The market area manager should coordinate measures for increasing network capacity in case of sustained bottlenecks [...] The transmission system operators are obliged to work together with the market area manager and to take appropriate measures.

Requirements GWG

The gas law sets some essential requirements for the approach to determining network capacities.

§36: Capacity products and allocation

- Section 1: The TSOs should offer firm and interruptible capacities. These capacities should be offered without predefined transport routes and without additional conditions for the booking and free use of these capacities. Network users should be enabled to book capacities at the different points in the network independently with respect to size and timing.
- Section 2: Capacities should be offered as annual, monthly and daily products. The share of each of these capacities should be based on the request of the market.

Proposed Methodology GCA

Gas Connect Austria is developing a capacity calculation methodology and model for a decoupled entry-exit-system.

- Capacity calculation model to prevent over-injection
- Definition of three different capacity products with a different 'quality':
 - **Firm and freely allocable capacity (FZK)**
firm capacity with full access to the virtual point (full access to VP)
 - **Firm dynamically allocable capacity (DZK)**
firm capacity for specific entry-exit-points, but access to certain other entry-exit-points and virtual point only on an interruptible basis
 - **Interruptible capacity (UK)**
interruptible capacity without restrictions on the access to the virtual point or particular entry-exit-points.
- Network bottlenecks are reflected in the dynamically allocable capacities (DZK).

Plausibility Check GCA Capacity Model

Based on the capacity calculation methodology put forward by GCA, some points for discussion are identified.

- **Basis:**
 - WECOM presentation from December 14, 2011 documenting the then current status at OMV Gas GmbH.
 - Bilateral interactions and clarification between KEMA and GCA
 - GCA response to KEMA's interim report
- The capacity calculation model is in development. At this point in time only a conceptual plausibility check is possible.
- Based on the information available, the following slides do not provide a full assessment, but they highlight some points for discussion.

Plausibility Check GCA Capacity Model

With dynamically allocable capacities network users are limited in the free and flexible use of their contracted capacities.

Compatibility of DZK with the decoupled entry-exit system

- The DZK does not seem to be compatible with the general requirements of the decoupled entry-exit system because flexible use other than for specific point-to-point connections is not guaranteed.
- DZK seems to deviate from the requirements of the GWG § 36 where it is specified that these capacities should be offered without predefined transport routes and without additional conditions for the booking and free use of these capacities.
- Pursuant to § 35 DZK is allowed as a capacity increasing measure, although pursuant to § 41 the regulator is entitled to limit or prohibit limited allocable capacity if this would counteract the competitive development of the market.
- Besides DZK there are other possible means to increase available capacity, for example load flow commitments. The law allows limited allocability only as a measure of last resort and for temporary and exceptional situations.

Plausibility Check GCA Capacity Model

In essence DZK has two problems, isolation of flows from price signals and potential discrimination.

DZK could have a negative impact on the optimal market functioning

- Capacities with limited allocability could give rise to part of the gas flows being isolated from economic signals, which could lead to suboptimal market results.
- This effect however depends on the share of capacities with limited allocability.

GCA states that 15% of the total capacity will be issued as capacity with limited allocability

- At the moment it is unclear how this threshold was established and what the main influencing factors are
- It is important to make clear how this share could potentially change in future.

Plausibility Check GCA Capacity Model

In essence DZK has two problems, isolation of flows from price signals and potential discrimination.

It is not yet known how the DZK conditions will be specified

- For DZK, the TSO can temporarily not allow nominations in cases of congestion. At the moment it has not yet been defined how these conditions will be documented: will they be specified in standard conditions (applying to all network users) or are these conditions specified per capacity booking (bilateral)?
- Different conditions for particular entry-exit points or for different network user could lead to discrimination.
- How does DZK compare to interruptible capacities? Which sequence in interruption of competing nominations is intended?

Non-discriminatory allocation of DZK

- The transfer of existing capacity rights in the new capacity model is unclear. The form in which DZK will be offered in future is also uncertain.

Plausibility Check GCA Capacity Model

The capacity calculations are not made for one integrated network but rather in modules per TSO. This could lead to suboptimal results.

The network is not modelled as one integrated network. The capacities will be calculated for the separate TSO networks (WAG/PW, TAG/SOL, PVS1/HAG/KIP). Each TSO has its own module. In setting these, the overall maximum available capacity may not always be calculated.

- With the use of separate calculation, the maximum possible transmission capacity may not always be calculated, as required in GWG § 34 section 2.
- When the network is simulated for separate networks, constraints have to be set at the network coupling points TSO-TSO. In comparison to one integrated network simulation, these additional constraints could give rise to suboptimal results.
- Based on the current data availability, it is difficult to judge whether the system boundaries of the sub- models were chosen in the most optimal way.

Plausibility Check GCA Capacity Model

The methodology of GCA is based on worst case scenario assumptions. Unrealistic flows are not explicitly excluded.

Worst case scenario assumptions form the basis for the calculation of available capacities. This assumption could lead to an unnecessary reduction in available capacities.

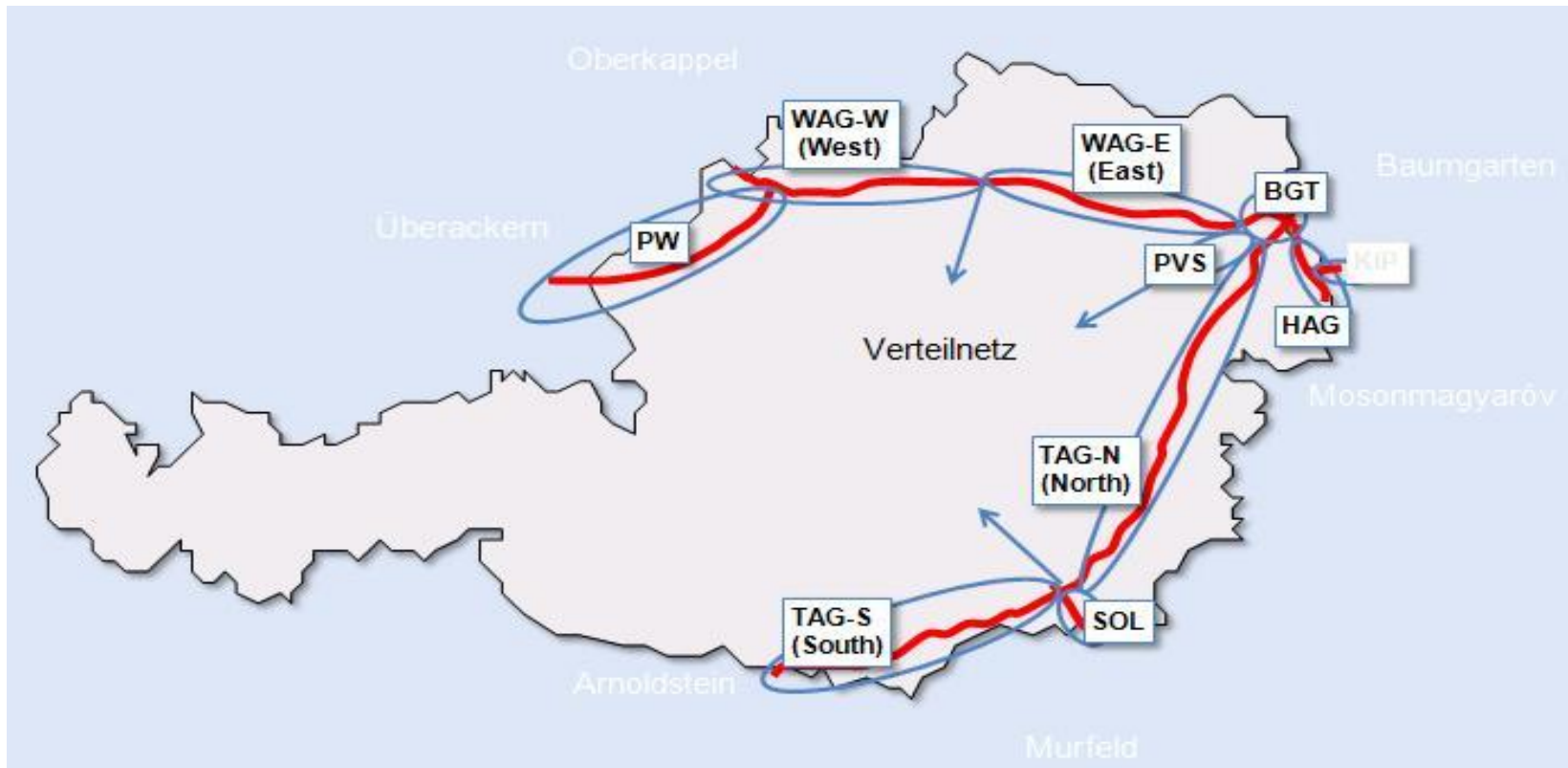
- The simulated network load could be lowered by explicitly excluding unrealistic extreme scenarios.
- This does not mean however that only historic load flows should form the basis, on the contrary, the system modelling should also consider extreme demand flow situations.
- Such an approach for complying with firm capacity bookings is already used by multiple network operators.
- It is necessary to evaluate the extent to which extreme unrealistic scenarios could/should be excluded from the capacity calculations. This can only be done by looking at each scenario individually.

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Network Segmentation

The Austrian gas transit network has been segmented to enhance the cost reflectivity in the tariff calculation.



Note: These segments are not market areas, but merely a segmentation of the network to facilitate the allocation of costs to different network points.

Underlying Approach

Network charges are calculated for the whole market area.

- The basis of the calculation is the sum of the TSOs' revenues
- The calculation results in an integrated tariff system for the whole market area
- There are no tariffs at network connection points between TSOs within the market area
- Inter-TSO compensation scheme is required
- Allocation of the corresponding cost is made in the following order:
 - firstly to pipeline sections
 - then to chargeable quantities (booked capacities) at the entry and exit points
 - supplementary adjustments to ensure sustainability, successful transition, competitiveness and affordability.

Assumptions and Settings Used

The modeling exercise is based on unvalidated historic, physical and cost data. It aims to illustrate the calculation approach and not to suggest actual tariff levels.

- Based on data submitted by the industry and ECA for 2010
- Chargeable capacity based on the booked capacity
- WAG divided in two sections. The split was made at Gr. Göttfritz
- The domestic exit zone integrates all the domestic exits (domestic exit via PVS, domestic exit via WAG and domestic exit via TAG)

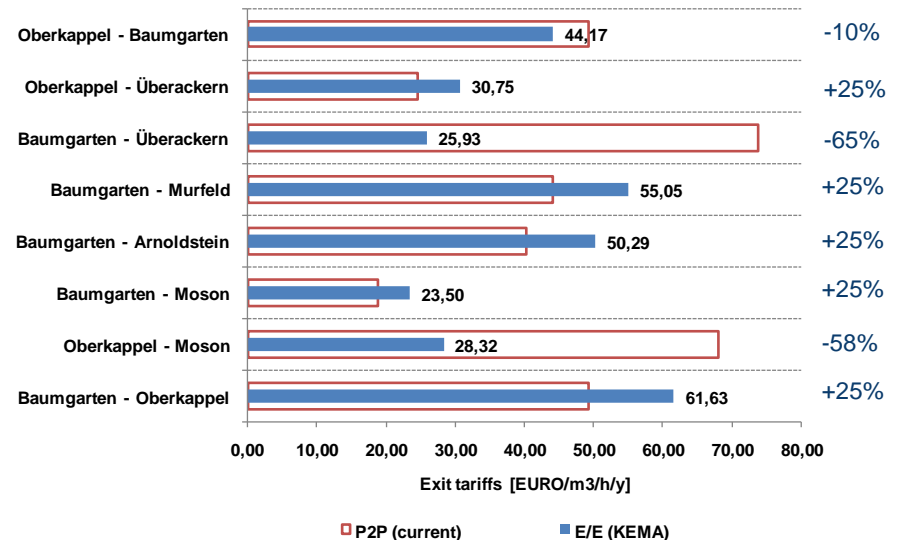
Mathematical Constraints

Specific constraints are applied in the calculation process in order to set additional requirements on the calculated tariffs.

- Limitation on the deviation from the current point-to-point tariffs
- Limitation on the sum of entry and exit revenue for domestic supply
- Entry / exit revenue shares
- Entry and exit tariffs should be ≥ 0
- Calculated tariffs should generate the required revenue

Simulation Results - Example

Exit	Tariff [EURO/m ³ /h/y]	Entry	Tariff [EURO/m ³ /h/y]
Baumgarten	31,36	Baumgarten	7,99
Murfeld	47,06	Oberkappel	12,81
Arnoldstein	42,30		
Mosonmagyarovar	15,51		
Oberkappel	53,63		
Überackern	17,94		
National exit zone	2,64		



- Constraints applied:
 - Maximum upwards deviation from P2P tariffs capped at **+25%**
 - Revenue split from entry and exit capacity set at **20% : 80%**
 - Sum of entry and exit fees for domestic supply in range of historical levels
- Weighted average tariff for national exit zone is 2,64 €/m³/h/y



Thank you!

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