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BGM Forum 2024 (Within-day Flexibility Charge)

Within-day flexibility charge (1)

- **On 1 October 2016, an incentive system for traders was introduced to ensure that even within-day inputs and offtakes are kept in balance**
  - The incentive system follows from is the GaBi Gas 2.0 ruling (i.e. the NC BAL), which provides for the introduction of a within-day incentive system
- **Framework for the incentive system already included in the decision**
  - A tolerance of 7.5% of the daily quantity is granted for RLM exit points
  - Hourly imbalances between inputs and offtakes are accumulated over the day and compared with the tolerance band on an hourly basis
  - The quantities exceeding the tolerance band per hour are totalled as a virtual flexibility quantity. A within-day flexibility charge per MWh must be paid for the totalised virtual flexibility quantity
  - The within-day flexibility charge is only levied if costs are incurred for the MAM as a result of an use of balancing gas in the opposite direction in MOL rank 1, i.e. both the purchase and sale of balancing gas on one day (not applicable to biogas balancing group)
  - The amount of the within-day flexibility charge is half of the difference between the quantity-weighted average prices for buying and selling for the relevant gas day

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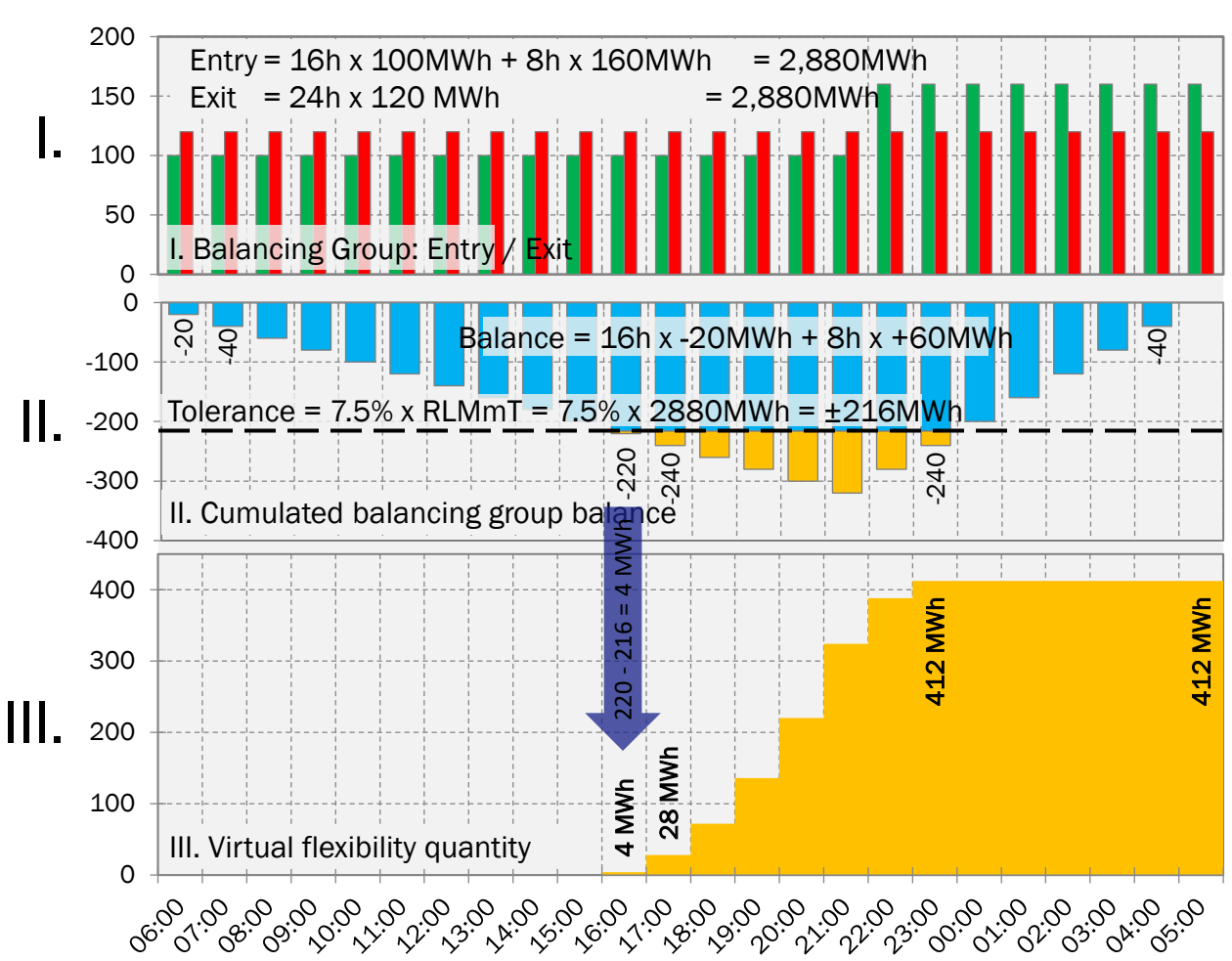
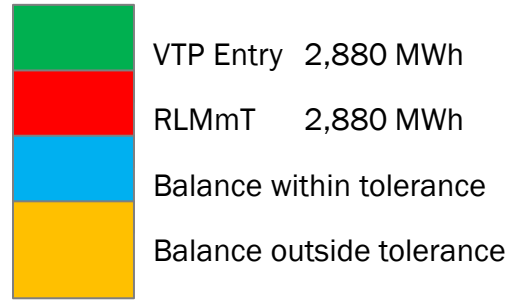
Within-day flexibility charge (2)





- Hourly BG balance (entry - exit) is cumulated over the day
- Comparison of balance against tolerance (+/- 7.5%)
- Tolerance overrun is totalled by amount
- Total is the virtual flexibility quantity

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Within-day flexibility charge (3)

Day D	Price	Balancing gas quantity	Costs (+) / revenues (-)
Purchase (MOL 1)	€ 30	250 MWh	€ 7,500
Purchase (MOL 1)	€ 50	250 MWh	€ 12,500
Purchase subtotal		500 MWh	€ 20,000
Sale (MOL 1)	€ 25	- 60 MWh	€ - 1,500
Sale (MOL 1)	€ 12.5	- 40 MWh	€ - 500
Sales subtotal		- 100 MWh	€ - 2,000

Avg. price of balancing gas purchased: €20,000/500 MWh = €40/MWh

Avg. price of balancing gas sold : €2,000/100 MWh = €20/MWh

Within-day flexibility charge (never negative: otherwise 0):
½ x (purchase price – sales price) = ½ x (€40/MWh - €20/MWh) = **€10/MWh**

In our example: 412 MWh x €10/MWh = €4,120

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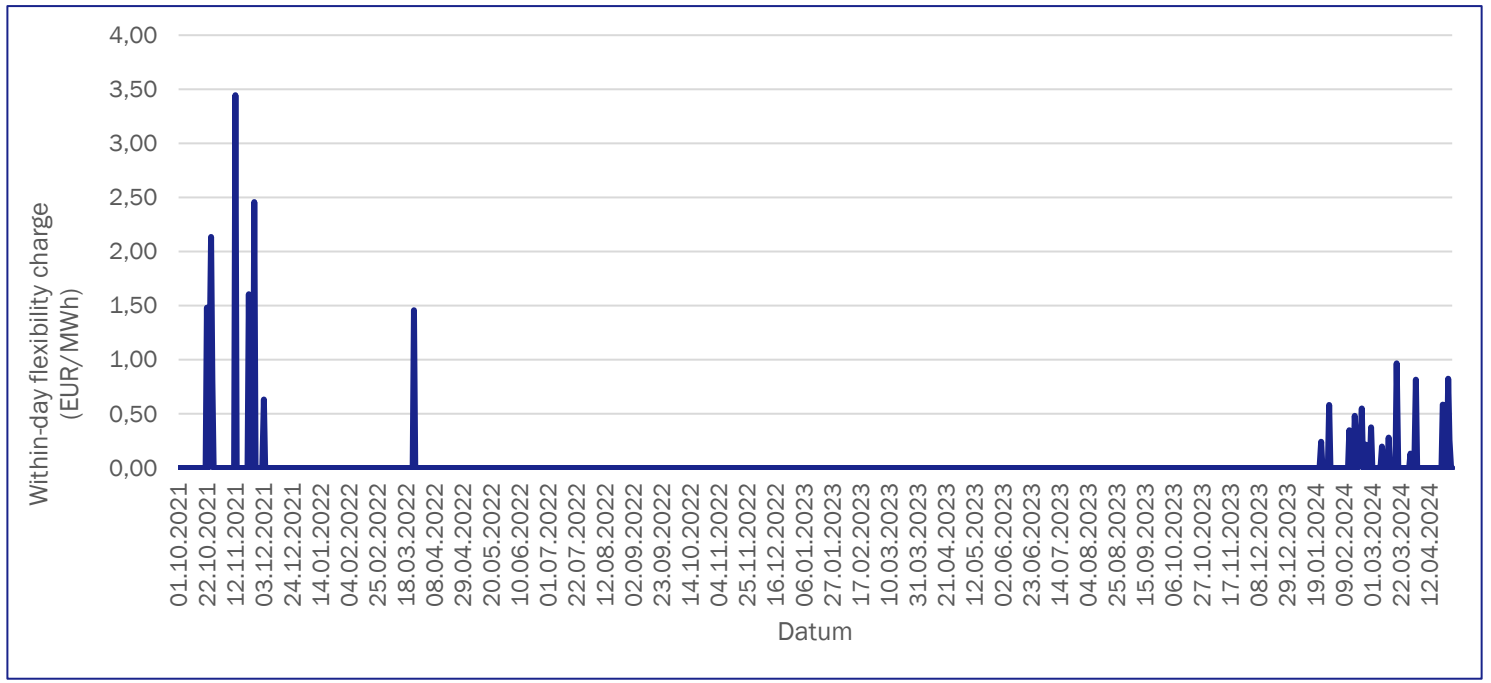
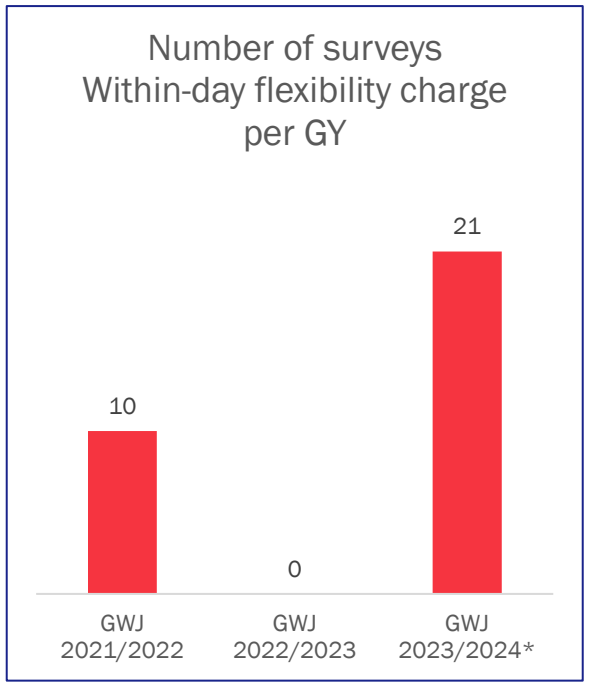
Within-day flexibility charge (4)





Since January 2024, within-day flexibility charges have increasingly been determined by THE and invoiced to BGMs for within-day imbalances. Possible causes are being analysed.

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Thank you.

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Regulatory Outlook

Agenda

- The EU's Fourth Gas Market Package
- Expiry of the Gas Network Access Ordinance (GasNZV)
- Transformation of the distribution networks

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Regulatory Outlook

at EU and national level

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The fourth gas market package

What is the package about?

Legislative package aimed at implementing the European Green Deal and achieving climate neutrality by 2050. Key elements include the **legal and regulatory framework for hydrogen**, new requirements to improve the energy efficiency of buildings and measures to reduce methane emissions in the energy sector.

Which are the key elements for the gas industry

- Unbundling requirements for hydrogen network operators
- Network access requirements for the hydrogen industry
- Institutions for cooperation between network operators at EU level
- Strengthening consumer rights (switching suppliers within 24 hours)
- Blending requirements

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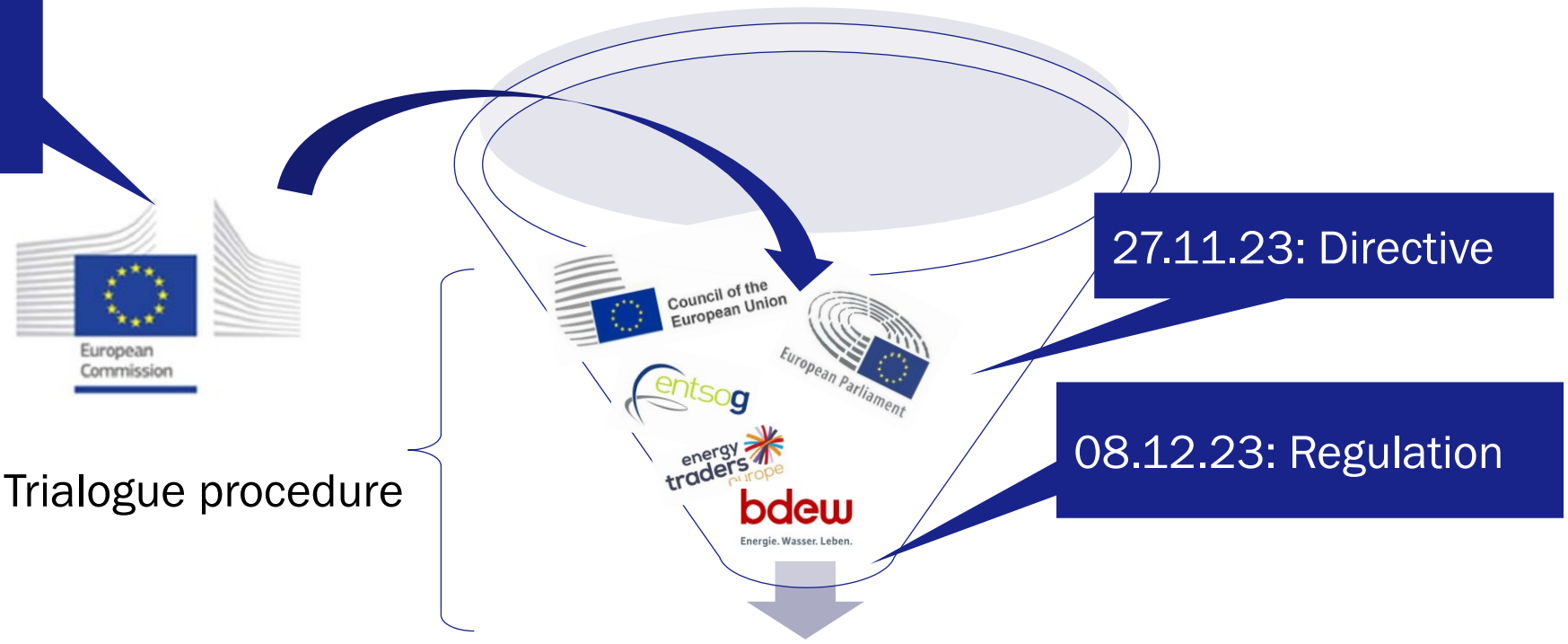
What is the current status?

2021: Proposal for Directive and Regulation



27.11.23: Directive

08.12.23: Regulation

Trialogue procedure

Final vote in parliament in mid-April 2024

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Directive and Regulation

Directive sets out rules for market organisation

- Unbundling rules:
  - Vertical: ITO model is possible for an unlimited period of time
  - Horizontal: yes, but member states can deviate following a cost-benefit analysis

- Market roles and their responsibilities
  - DSOs and TSOs have separate roles

Regulation governs the functioning of the market

- Creation of network codes
  - NC CAM, NC Bal, Cyber Security, etc.

- Establishment of associations
  - ENNOH
  - DSO entity

- Consumer protection
  - Supplier switching within 24h

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Green Paper by Federal Ministry for Economic Affairs and Climate Action (BMWK)

Background: Need to decarbonise energy infrastructure to achieve climate targets

Objective: Transition from traditional natural gas networks to hydrogen distribution networks by 2045.

Relevance: Ensuring a sustainable, secure and climate-friendly energy supply. This also includes the gradual dismantling of existing gas networks.

Important milestones and deadlines

- **2028:** Network operators to submit roadmaps and investment plans for transition to hydrogen.
- **2035 & 2040:** Important interim targets on the way to complete transformation.
- **2045:** Target year for complete conversion and achievement of climate neutrality.

Adjustments in the regulatory environment

- **Authorisation procedure:** Necessary approvals from the Federal Network Agency by the end of 2024.

- **Legal requirements:** Need to comply with climate targets and ensure economic and technical feasibility.
  - Rules for network connection obligations and cancellations as well as the adjustment of fee regulations to ensure economic viability.

- **Regular reviews:** Need to ensure that conversion plans are up to date and relevant.

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Economic considerations and challenges

- **Cost structure:** Adjustments to the costs and financing of the transformation.
  - Switch to a hydrogen and renewable energy-based supply can lead to increased costs in the short term and possibly to an unbalanced distribution of costs between consumers.

- **Economic incentives:** Need to create incentives for investment in hydrogen infrastructure.

- **Security of supply:** Continuous and reliable energy supply during transition phase.
  - During the transition phase, network operators will have to ensure that the supply of energy remains reliable and uninterrupted.

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What about biomethane?

- **Limited availability:** Biomethane is a very limited resource (only 10 TWh/a)
  - could lead to considerable scarcity and high prices
- **Regulatory phase-out:** Current privileges for biomethane plants (GasNZV) to expire at the end of 2025
  - will have an impact on future funding and support of biomethane
- **Risk of a lock-in effect:** investments in biomethane infrastructure could lead to a 'lock-in effect'
  - Dependence on this energy source could have undesirable economic consequences in the long term
- **Need for planning certainty:** Green Paper emphasises the need for rapid planning certainty for operators of natural gas distribution networks and biomethane plants in order to be able to make efficient and economically viable decisions.

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What's next?

- The ideas from the Green Paper are to be translated into a new regulatory and legal framework.
- **Public consultation** (already underway)
- **Adjustments to regulatory framework:** Based on the feedback from the consultation process, steps will be taken to ensure that the legal conditions are in line with the new goals of the energy infrastructure, in particular as regards the transition to hydrogen and the gradual reduction of natural gas.
- **Implementation of new laws and regulations:** new laws and regulations are to be put in place to govern the operation and development of gas and hydrogen networks.

Objective: These regulations are to be enshrined in national law by 2025.

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GasNZV to expire

- Background
- **ECJ ruling: BNetzA is not independent enough**
- Result:
- **BNetzA is granted extensive competences (EnWG amendment from January 2024)**
- Consequence:
- **GasNZV expires on 1 January 2026**

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What will come after the GasNZV?

- BNetzA will (have to) define rules for the existing network access requirements.
- BNetzA will most probably begin this process by the summer and involve the market through consultations.
  - Potential focus topics:
    - Capacities
    - Balancing
    - Supplier switching
    - Biogas

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Thank you.

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