NCG VTP Workshop 2014

Düsseldorf, 24th March 2014
Agenda of today’s workshop

“NCG VTP Workshop 2014”

⇒ Current and future developments at the NCG VTP
⇒ Balancing gas management at NetConnect Germany

Coffee break

⇒ Publication of information and transparency within the market area of NetConnect Germany
⇒ Status quo and outlook on GABi 2.0

End of today’s workshop and collective dinner at the hotel restaurant
Current and future developments at the NCG VTP

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Agenda

1. Volumes traded at the NCG VTP
2. Exchange-traded spot market volumes with delivery at the NCG VTP
3. Future developments at the NCG VTP
Positive year-on-year* development of volumes traded at the NCG VTP until 2013

Multi-quality market area NCG

GY 08/09: 515,847 GWh
GY 09/10: 883,014 GWh
GY 10/11: 1,111,739 GWh
GY 11/12: 1,387,479 GWh
GY 12/13: 1,700,936 GWh

No increase of traded volumes since December 2013

*) Until April 2011: total volumes traded at VTPs NCG (high cal gas) and Open Grid Europe (low cal gas)
Development of churn rate at the NCG VTP

Churn rate for high cal gas reached peak in April 2013 at 4.11

Churn rate = volumes traded per month / physical throughput at VTP
Development of traders active at NCG VTP

Number of active trading participants has been rising continuously

Trading participants

- high cal gas
- low cal gas

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Introduction of daily data in December 2013
OTC volumes in the European gas markets as published by LEBA* (1/2)

OTC volumes in 2013 at NBP are around 8 times higher, OTC volumes in 2013 at TTF are around 6 times higher than the NCG volumes

*Source: London Energy Brokers’ Association Monthly Volume Reports on Gas
OTC volumes in the European gas markets as published by LEBA* (2/2)

Yearly increase of approximately 30% of OTC volumes at NCG VTP

*NSource: London Energy Brokers’ Association Monthly Volume Reports on Gas
Discussion: How attractive is the NCG VTP and how can we promote liquidity?

- Are you satisfied with the developments seen to date at our trading point?
- What are the reasons for the stagnation of the traded volumes at the NCG VTP?
- What are the reasons for the increase of traded volumes in the brokered trading segment at the NCG VTP?
Agenda

1. Volumes traded at the NCG VTP

2. Exchange-traded spot market volumes with delivery at the NCG VTP

3. Future developments at the NCG VTP
Volumes traded on the EEX spot market for delivery at the trading points NCG, GPL and TTF

EEX/NCG spot market has experienced rapid growth

Source: Market Data of European Energy Exchange AG
The share of balancing gas trades in the EEX/NCG spot market is particularly high in the winter months; on average, balancing gas trades make up 40% of volumes traded.
Volumes traded on the EEX/NCG futures market

Volumes traded on the EEX/NCG futures market are subject to fluctuations

GY 08/09: 11,124 GWh

GY 09/10: 30,098 GWh

GY 10/11: 25,794 GWh

GY 11/12: 37,961 GWh

GY 12/13: 29,142 GWh

1,000 | 2,000 | 3,000 | 4,000 | 5,000 | 6,000 | 7,000 | 8,000 | 9,000 | 10,000 | 11,000 | 12,000 | 13,000 | 14,000 | 15,000

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Comparison of spot markets for delivery at the NCG and TTF trading points*

*Source: Market Data of European Energy Exchange AG and ICE Endex

EEX/NCG spot market can compete with other European gas hubs

*Source: Market Data of European Energy Exchange AG and ICE Endex
Discussion: How attractive is trading on the exchange for delivery at the NCG VTP and how can we promote liquidity?

Are you satisfied with the liquidity of the products traded in the EEX/NCG spot market?

What are the reasons for the comparatively low futures volumes traded on the exchange for delivery at the NCG VTP?
Agenda

1. Volumes traded at the NCG VTP

2. Exchange-traded spot market volumes with delivery at the NCG VTP

3. Future developments at the NCG VTP
Key results from latest VTP market survey in 2013 – general suggestions

- NCG as a direct contact for VTP
- Set up a central service hotline
- Increase the number of English language pages
- Semi-annual events for information about market changes
- Information about mismatch / lesser-of rule
- Improve communication between the members of staff on different VTP shifts as to mismatches that have already been communicated
What functionality should such a VTP app provide?

NCG is currently reviewing whether to introduce a mobile application for BGMs which would allow them to monitor their trading activities at the NCG VTP on mobile devices.
Balancing gas management at NetConnect Germany

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1. Current balancing gas management at NCG
2. Ways to participate in the NCG balancing gas market
NCG’s main aim is to stabilise the system efficiently – balancing gas management

NCG operates a bilateral platform to meet local and quality-specific balancing requirements and to ensure a minimum level of liquidity

Use of OTC short-term products

Backup through long-term options

Focus is on exchange-based procurement of balancing gas

As of 01 October 2013, NCG and Gaspool harmonised OTC product specifications and procurement mechanisms following a consultation of market participants

Under NC BAL NCG is required to primarily procure balancing gas through the exchange
Current balancing product portfolio of NetConnect Germany

Since October 2013:

- New quality-specific products for high cal and low cal gas introduced by EEX to satisfy specific balancing requirements of NCG: EEX/NCG (H/L)
- Due to legal requirements suppliers must ensure physical delivery of the traded product and NCG is entitled to ask the supplier for verification

*) Products may not always be tendered simultaneously
Market area divided into balancing gas zones (1/2)

**H-gas North (HN)**
- e.g. NPT, EPT I, EPT II, Etzel,
- US Krumhörn, OUDE I, OUDE II,
- Bunder Tief

**H-gas Central (HM)**
- e.g. Verlautenheide, Bocholtz,
- Eynatten, Vitzeroda

**H-gas South (HS)**
- e.g. Waidhaus, Bierwang, Breitbrunn,
- Inzenham, Oberkappel, Wallbach

Source: Raß/ Schuppner, GNU, Open Grid Europe, 02/2011
Market area divided into balancing gas zones (2/2)

L-gas East (LO)
e.g. Winterswijk, Epe-L, Emsbueren, Drophne, Steinbrink, Ahlten, Nordlohne

L-gas West (LW)
e.g. entries NETG, Elten/Zevenaar

Source: Raß/ Schuppmner, GNLI, Open Grid Europe, 02/2011
Overview of product categories under the balancing gas target model

**Standardised short-term balancing products**

- Title via exchange in own market area (delivery at VTP)
- Title via exchange in own market area (delivery in specified gas quality)
- Title via exchange of adjacent market area (delivery at VTP)
- Trades on bilateral platform (delivery in specified gas quality or at specified points)

**Standardised long-term balancing services**

- Tendering and calling of services under long-term option products via bilateral platform

**Non-standardised long-term balancing services**

- To meet individual physical balancing requirements that cannot be satisfied through the use of standardised commodity products
Merit order according to the target model

1. Title Market Transactions
   - Own market area via exchange (title products with delivery at VTP)

2. Locational Market Transactions
   - Own market area via bilateral platform (products with physical delivery in specified gas quality or at specific points/zones)
   - Own market area via exchange (products with physical delivery in specified gas quality)
   - Adjacent market area via exchange

3. Standardised long-term products

4. Non-standardised long-term products
   - Long-term options via bilateral platform
   - Non-standardised flexibility services
Since 01/10/2013, the share of balancing gas procured on the exchange has been far above 90%.
Comparison of imbalance prices and balancing gas prices ("Global" balancing criterion)

Procurement prices largely within imbalance price spread
Comparison of imbalance prices and balancing gas prices ("Quality" balancing criterion – high cal gas)

Price outliers due to low liquidity for EEX/NCGH products

As of: 2014-03-12

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Comparison of imbalance prices and balancing gas prices ("Quality" balancing criterion – low cal gas)

Procurement prices within imbalance price spread thanks to availability of EEX/NCGL and EEX/TTF

As of: 2014-03-12
Procurement of low cal balancing gas at the TTF

Original motivation for procurement at TTF:

- Market-based procurement of low cal balancing gas
- Since June 2011, large quantities of low cal balancing gas have been procured at the Dutch TTF spot market

Current situation:

- TTF volumes have gone down due to implementation of target model (MOL Rank 2)
Since the balancing gas target model was implemented, the share of balancing gas trades relative to the total EEX/TTF spot market volumes has fallen.
1. Current balancing gas management of NCG

2. Ways to participate in the NCG balancing gas market
Possible ways to participate in the NCG balancing gas market

- **Indirectly through upstream supplier**
  - Non-standardised lot sizes

- **Pooling arrangements**
  - 24/7
  - Imbalance risk
  - Must comply with lot sizes

- **Balancing gas supplier (MBG)**
  - 24/7
  - Must comply with lot sizes

- **Balancing gas supplier (SBG)**
  - Non-standardised lot sizes possible

MBG = master balancing group; SBG = subordinate balancing group
NCG operates a bidding platform where balancing gas suppliers can bid for balancing products.

Under the balancing gas target model, balancing gas suppliers can change their offer until their bid is accepted.

Overview of currently placed invitations to bid for short-term and long-term options.
NCG provides the market with up-to-date indications of its balancing requirements

- The illustrations on the NCG website indicate the hourly demand for balancing gas or services NCG needs to procure from the market.
- Market participants can sign up for a push service to automatically receive the indications (*no indications between 7am and 7pm on workdays*).

If the status is “neutral”, no balancing gas or services are currently required.
If system imbalances exceed defined thresholds, the status changes to “SystemBuy or SystemSell possible”.
In the event of serious imbalances an exact hourly flow rate is specified.
Publications of balancing gas quantities and services used

Publication of SystemBuy and SystemSell quantities

Information provided:

- Delivery day
- Location (exchange-traded product or balancing gas zone)
- Merit-Order-Rank of the balancing tool
- Duration of use
- Hourly quantity
- Daily quantity
- Commodity price
- Total costs/revenue
- Balancing criterion (global/quality/local)
- Call (short-term or long-term)
- Gas quality (high cal or low cal)
Since implementation of the target model, we have increased the scope of information published:

- Publication of the status quo on our bidding platform for balancing gas
- The total quantity of supply is divided into intervals of 20% each
- For each interval the marginal price is shown (refreshed every 15 min)

Where we have to depart from the MOL, we publish this on our website (e.g. if we have operational problems).
Discussion: How attractive is the balancing gas market and how can we further develop it?

From the perspective of your company, how would you rate the general attractiveness of the balancing gas market (OTC/exchange)?

Do you actively participate in the exchange trading of quality-specific products with mandatory physical delivery in the specified quality?

Do you think that the balancing products currently used (OTC, exchange) need to be modified in the future?
Publication of information and transparency within the market area of NetConnect Germany

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On its website and on the market partner portal NCG publishes relevant data for market participants.

**NCG website**
- Publication of
  - Prices, fees and charges
  - Contact persons
  - Contract terms & conditions
  - General information
  - VTP data

**Market partner portal**
- Viewing balancing group data and graphical illustrations
- Preliminary invoice amounts
- Administration and overview of balancing group contracts and linking arrangements

Market participants can apply for user admission to the market partner portal on the NCG website.
On the NCG website helpful information is made available to market participants

Contact persons
- NCG contacts
- Allocation and clearing
- VTP trading participants
- Balancing gas pooling contacts

Prices, fees and charges
- Hub reference prices
- Imbalance prices
- Structuring charge
- RLM reconciliation price
- SLP reconciliation price
- Balancing levy (neutrality charge)
- VTP fee

Contract terms & conditions
- Balancing group contract
- Linking of balancing groups
- Market partner portal terms of use
- System balancing contracts
- Balancing product descriptions

VTP data (monthly and daily data)
- Traded volumes
- Churn rate
- Number of trading participants

Data transparency in the NCG market area is further supported by graphical analyses and statistics
The market partner portal provides a large number of functions for balancing group managers:

- Entering into and administering balancing group contracts
- Master data maintenance
- Biogas flexibility transfers
- Viewing of balancing group data and handling of clearing processes
On the market partner portal BGMs can view the data recorded for their balancing groups.

Allocation and trading data can be displayed on a monthly or hourly basis (data can be filtered by allocation group/data quality).

Data displayed can be downloaded.

Subscriptions for daily or monthly allocation data feeds.

Preliminary amount of balancing group invoices can be shown.
On the market partner portal BGMs can access graphical analyses of balancing group data. Data can be exported to an Excel file. Alert for possible clearing. Balancing group status view can be customised by the user.
The market partner portal provides BGMs with an overview of balancing group contract and linking details.

Overview of balancing group contract details
- Contract start date
- Contract parameters (contract type, capacity type, VTP access etc)

Illustration of linking arrangements
- Duration of linking
- Graphical illustration of overall balancing group structure

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NCG strives to continuously develop its data publication service and the transparency of the data it publishes

Are the data we publish on our website and on the portal easy to find?

Do you find the data we publish on our website and on the market partner portal helpful for your work?

Do you have any ideas or wishes as to how we should further develop our data publication services?
Status quo and outlook on GABi 2.0

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Current NC BAL implementation schedule

- 01/10/2015: Implementation within Germany (extension to 01/10/2016 possible)  
  - Timeline: appr. 9 months
- December 2014 (estimate): Completion of formal BNetzA proceeding  
  - Timeline: appr. 9 months
- April 2014: Start of consultation by BNetzA  
  - Timeline: appr. 1 month
- 03/03/2014: Publication of recommendation document prepared by MAMs/TSOs  
  - Completed
- 28 & 29/10/2013: Final version of NC BAL (EN/DE)  
  - Completed
Background for GABi 2.0

• The current GABi Gas regime has generally proven to be effective:
  • There are sufficient incentives for BGMs to ensure that system stability and security of supply are guaranteed
  • MAMs are able to satisfy their balancing requirements by procuring balancing gas and services in the market
• Rules and processes compliant with NC BAL should be maintained to the extent possible to avoid unnecessary changes to the system
• Changes primarily required in the following fields:
  • Information provision
  • Within day obligations (WDO)
  • Imbalance prices
  • Balancing levy (neutrality charge)
Information provision

- NC BAL allows for a maximum of 4 hours to elapse between obtaining meter reads for RLM end users and submitting data to BGMs.
- Article 34 NC BAL provides that the first update must cover at least four hours of gas flows.
- Proposal by GABi Gas 2.0 work group: three hours for network operators, one hour for MAM (to send RLM allocation data report).
- Proposals from recommendation document:
  - BGMs should receive second intraday data report by no later than 18:00 hours.
  - Within the gas day BGMs would therefore receive data relating to the meter reading period from 06:00 to 14:00 hours (today 06:00 to 12:00 hours).
  - In view of very different opinions of market participants in this matter MAMs and TSOs do not submit proposal regarding exact delimitation of the two time windows.
  - It is recommended that second data report should contain an update of the data from the first time window in addition to data from the second time window, and data from first time window should be overwritten and/or updated.
Prerequisites for application of within day obligations (WDOs)

• Must not impose barriers for market entry
• Network users must be provided with adequate information in a timely manner
• Main share of balancing costs incurred by network users must relate to their daily imbalance position
• WDOs should be cost-reflective as far as possible, i.e. based on the actual costs incurred through balancing actions required to structure gas flows
• WDOs must not result in network users being settled to a position of “zero” during the gas day

⇒ Current structuring charge not compliant with NC BAL
⇒ e.g. information provision process must be designed so as to enable BGMs to comply with the within day obligation
Proposed model: within day obligations

Allocation:
- Only one RLM customer group, allocations based on hourly measurements
- Other allocation groups unchanged

Flexibility:
- Flexibility (positive and negative) of x% applied on daily RLM quantity
- No flexibility for other allocation groups

Compensating hourly imbalances:
- Balance can be restored over the course of the day by inputting/offtaking counterbalancing quantities (netting)
- Traders are incentivised to re-balance quickly, as this allows them to again make use of the flexibility later in the day

Flexibility fee:
- Violations of the flexibility limit are determined for each hour
- Only hourly imbalances exceeding flexibility are billed to BGMs
- Fee is only applied on days where opposite balancing actions are taken
- Pricing based on buy/sell spread, on which percentage (t.b.d.) is applied

As outlined in recommendation document!
Imbalance pricing mechanism

- Weighted average price of gas
- Highest price of "buy" transactions
- Lowest price of "sell" transactions
- Weighted average price of gas
- NC BAL allows for "small adjustment"; currently planned to be set to zero

Possible imb. price

Trades transacted by MAM

End of the gas day

Time

As outlined in recommendation document!
Imbalances

• Charges for imbalances within balancing groups based on D+1 data
• New imbalance pricing mechanism based on marginal prices of balancing transactions or average price of gas on the day in question
• Marginal price / hub price is determined with reference to all products traded on the exchange:
  • MOL rank 1: EEX/Global, MOL rank 2: EEX/NCG H, EEX/NCG L and EEX/TTF
• Daily differences between D+1 and M+12 will be settled at the daily hub price traded at the relevant VTP
• Consequences for reconciliation:
  • Reconciliation between shippers and network operators for RLM quantities no longer necessary
  • SLP reconciliation prices no longer based on average imbalance prices but on average hub prices for the relevant period
# Proposed implementation schedule as submitted to BNetzA

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As outlined in recommendation document!
Summary of changes

- Two intraday data reports for RLM end users
- New imbalance pricing mechanism based on marginal prices of balancing transactions or average price of gas
- Introduction of within day obligations allowing for use of a flexibility based on daily quantities, with billing only taking place on days with opposite balancing actions
- “D+1” data report to be relevant for balancing group invoicing
- RLM reconciliation quantities to be taken into account at M+12
- NC BAL provides for separate SLP/RLM neutrality charges
- In part implementation by 01/10/2016 requested

As outlined in recommendation document!
Thank you for your attention.
Any questions?

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