NetConnect Germany

simply gas

Annual System Balancing Report pursuant to the GaBi Gas 2.0 ruling

Current as at November 2016

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BAL Code	Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks
BK7	the Federal Network Agency's Ruling Chamber No. 7 (*Beschlusskammer*)
BMWi	the German Federal Ministry for Economic Affairs and Energy (*Bundesministerium für Wirtschaft und Energie*)
DA	day-ahead
Federal Network Agency	the German national regulatory authority (*Bundesnetzagentur*)
GaBi Gas 2.0	the administrative ruling on gas balancing handed down by the Federal Network Agency on 19 December 2014 (ref: BK7-14-020)
GY	gas year
ICE Endex	the Intercontinental Exchange
ID	individual days
IP	interconnection point (here: cross-border interconnection point)
LTO	long-term option
MAM	market area manager
MOL	merit order list
MOL 1	exchange-traded spot contracts for delivery of gas at the NCG VTP
MOL 2	exchange-traded spot contracts for delivery of gas at the NCG VTP (high CV gas/low CV gas)
MOL 3	short-term bilateral balancing products for delivery of gas at the NCG VTP (high CV gas/low CV gas) contracted through the NCG platform
MOL 4	long-term bilateral balancing products contracted through the NCG platform
NCG	NetConnect Germany GmbH & Co. KG
OBA	operational balancing account
PEGAS	the Pan-European Gas Cooperation
Q	quarter
RoD	rest-of-the-day
SA	Saturday
SU	Sunday
TTF	Title Transfer Facility
W	calendar week
WD	within-day

1. INTRODUCTION

Section 9(a) of the operative part of the administrative ruling on gas balancing handed down by the German national regulatory authority Bundesnetzagentur (below referred to as the "Federal Network Agency") on 19 December 2014 (ref: BK7-14-020; the so-called "GaBi Gas 2.0" decision) imposes an obligation on NCG in its role as market area manager (MAM) of the market area NetConnect Germany to submit a summary report to the Federal Network Agency's Ruling Chamber No. 7 once a year, for the first time one year after the GaBi Gas 2.0 ruling has come into force, in which NCG is to report on the internal and external balancing actions in its market area as well as on the related procurement activities.

This System Balancing Report covers the gas year (GY) 15/16 and describes the internal and external balancing actions and related procurement activities NCG has carried out in accordance with the merit order set out in the GaBi Gas 2.0 ruling. In addition, this report provides an overview of our balancing-related procurement activities in adjacent market areas in accordance with Article 9(3) of the Network Code on Gas Balancing of Transmission Networks (the "BAL Code"). This System Balancing Report also provides information on our balancing services contracts and their actual utilisation as well as an analysis of possible options for reducing our use of these balancing services in accordance with Article 8(6) of the BAL Code. Furthermore, we analyse the measures that have been taken to further increase natural gas supply security in our market area as instructed by the German Federal Ministry for Economic Affairs and Energy (BMWi) in a policy paper published on 16 December 2015 (which is referred to below as the "BMWi policy paper") and review the approved interim measures currently in place in accordance with Article 46 of the BAL Code. In addition to the above system balancing topics we also address the supply model currently applied to provide gas to certain extraterritorial networks as our activities in this area can be characterised as "other balancing activities".

2. INTERNAL BALANCING ACTIONS

The charts in this chapter show the gas quantities that were provided in each direction (positive/negative) in the course of the so-called "internal" balancing actions (i.e. balancing actions effected by network operators by way of linepack and network storage measures) taken in the market area NetConnect Germany in GY 15/16, with separate charts being provided for the two gas qualities high-cal gas (below referred to as "high CV gas") and low-cal gas (below referred to as "low CV gas"). Figure 1 shows the internal balancing actions taken in the high CV network areas and Figure 2 those carried out in the low CV network areas, with all quantities provided on a monthly basis.

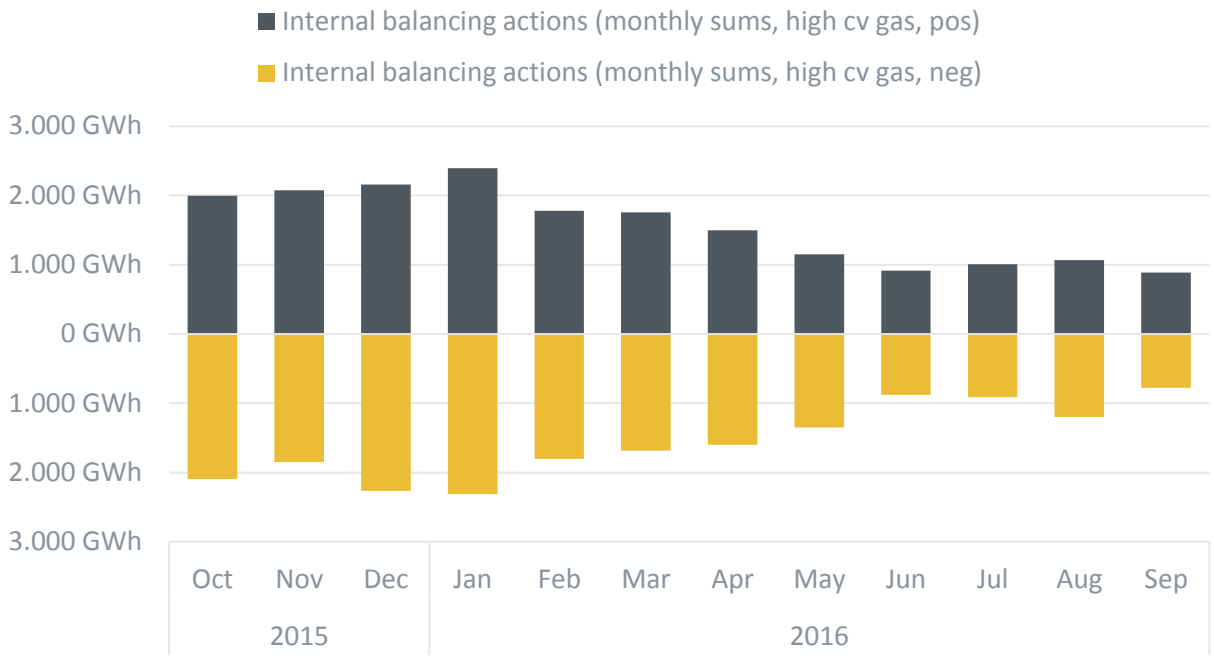

Figure 1: Internal balancing actions – quantities (high CV gas, by month)

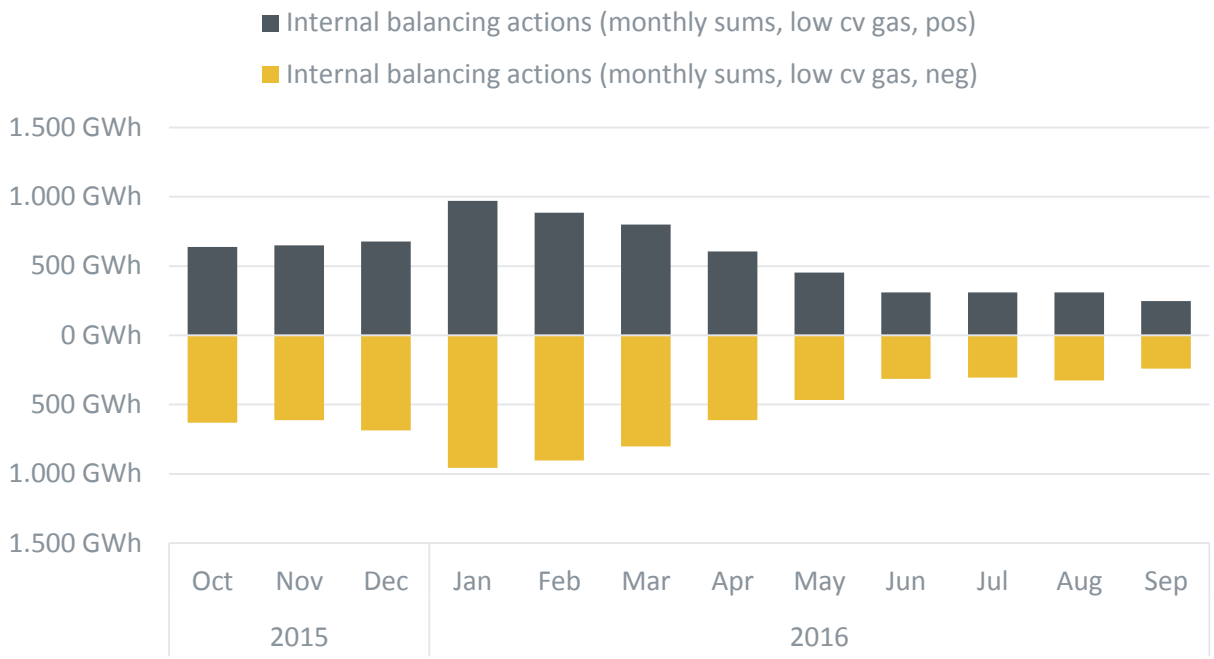

Figure 2: Internal balancing actions – quantities (low CV gas, by month)

3. External balancing actions and related procurement activities

3.1. Overview of SystemBuy and SystemSell balancing actions by merit order rank

Product portfolio available for balancing actions

We use a wide variety of exchange-traded as well as bilaterally contracted balancing products to procure the gas and services we require to meet our external balancing requirements (i.e. those balancing requirements that cannot (fully) be met by means of the internal balancing tools available). Figure 3 below shows the NCG balancing product portfolio as arranged by merit order rank and balancing criterion.

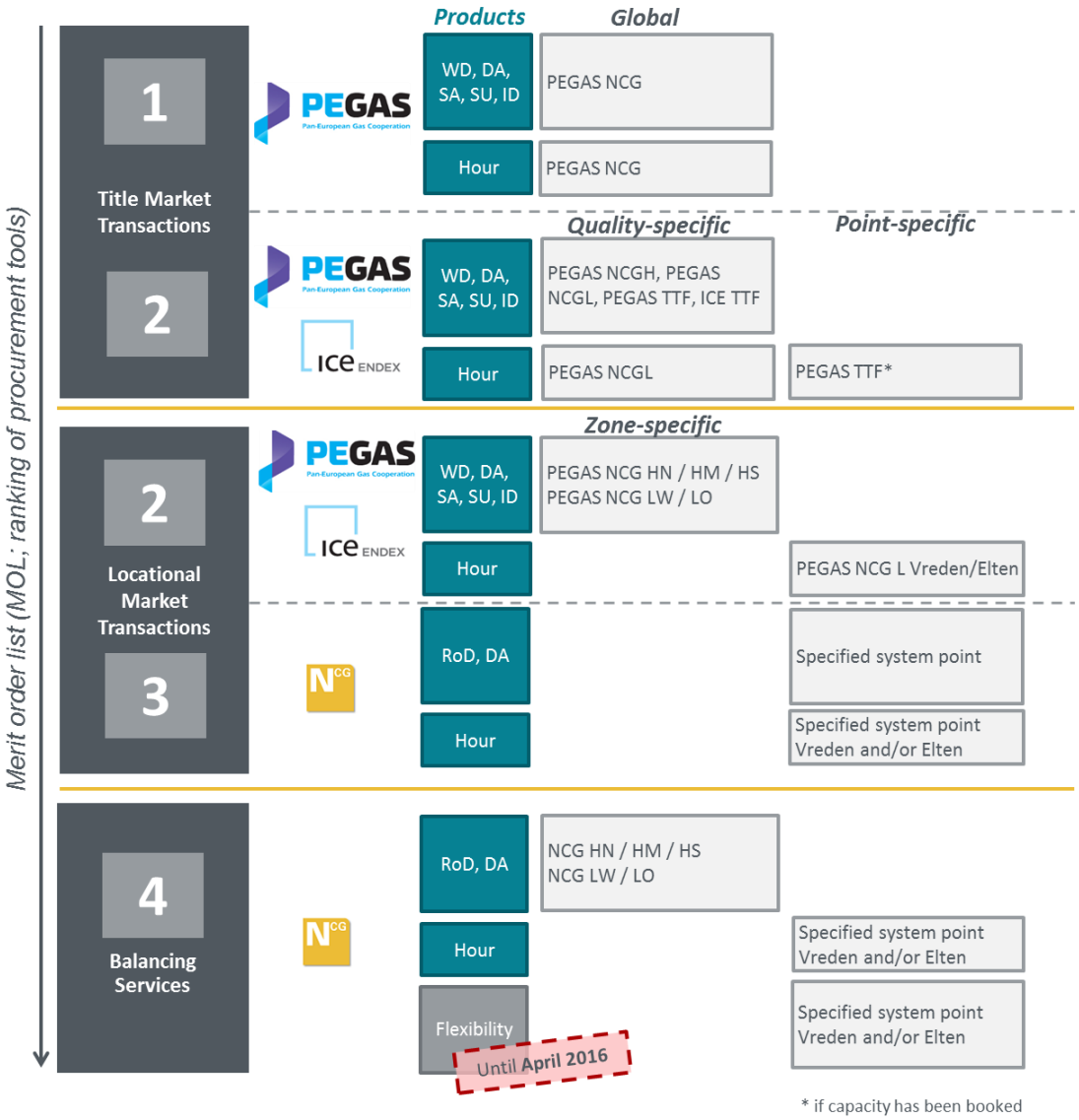

Figure 3: Overview of balancing products

QUANTITIES SUPPLIED/RECEIVED AND ASSOCIATED COSTS BY MERIT ORDER RANK

Below we describe the gas quantities that were supplied and received in the course of the external balancing actions taken in GY 15/16 as well as the associated costs and revenues, with the corresponding information being provided separately for SystemBuy balancing actions (purchases of gas for system balancing purposes) and SystemSell balancing actions (sales of gas for system balancing purposes) as well as by merit order rank.

One notable aspect compared with GY 14/15 is that the share of RoD and DA balancing actions using quality-specific products ranking at MOL 2 has increased notably. While in GY 14/15 some 86% of our total balancing requirements were met by way of MOL 2 balancing actions using quality-specific title products, this share rose to 94% in GY 15/16. 14% of our balancing requirements in GY 14/15 were met by way of MOL 1 balancing actions using global title products (i.e. balancing actions taken without regard to gas quality and/or location), compared with 6% in GY 15/16. This development can be explained by an increased use of the virtual gas quality conversion mechanism by market participants, which went up considerably and meant that more MOL 2 balancing actions had to be taken in order to carry out commercial conversion measures. The net quantity virtually converted in GY 14/15 was 10,073 GWh (net direction: high CV to low CV quality), which jumped to 29,585 GWh in GY 15/16 (net direction: high CV to low CV quality).

Due to the sufficient availability of MOL 1 and MOL 2 products, we did not have to use any of our long-term contracts for RoD balancing products ranking at MOL 4. And only 0.2% of our quality-specific balancing requirements were met through our bilateral short-term balancing products ranking at MOL 3. These minor quantities had to be procured bilaterally because the exchange was unavailable due to planned or unplanned downtimes at the time and we were thus unable to take balancing actions via the exchange.

Figure 4 shows the balancing products procured on a RoD and DA basis along with the associated costs and revenues for each month.

Similar to the situation for RoD and DA balancing requirements, our hourly balancing requirements at specific points (below referred to as “point-specific” balancing requirements) were also almost entirely met using MOL 2 products. Following the discontinuation of our balancing product “Flexibility” in May 2016, we were able to meet more than 99% of our balancing requirements by trading gas through the point-specific order books introduced on PEGAS at the end of March 2016 for the delivery of gas at the cross-border interconnection points (IPs) at Zevenaar and Elten.

The balancing products for the delivery of gas in individual hours (product variant “Hour”) that were used by NCG to meet point-specific hourly balancing requirements at the IPs Elten/Zevenaar and Vreden/Winterswijk are shown in Figure 5.

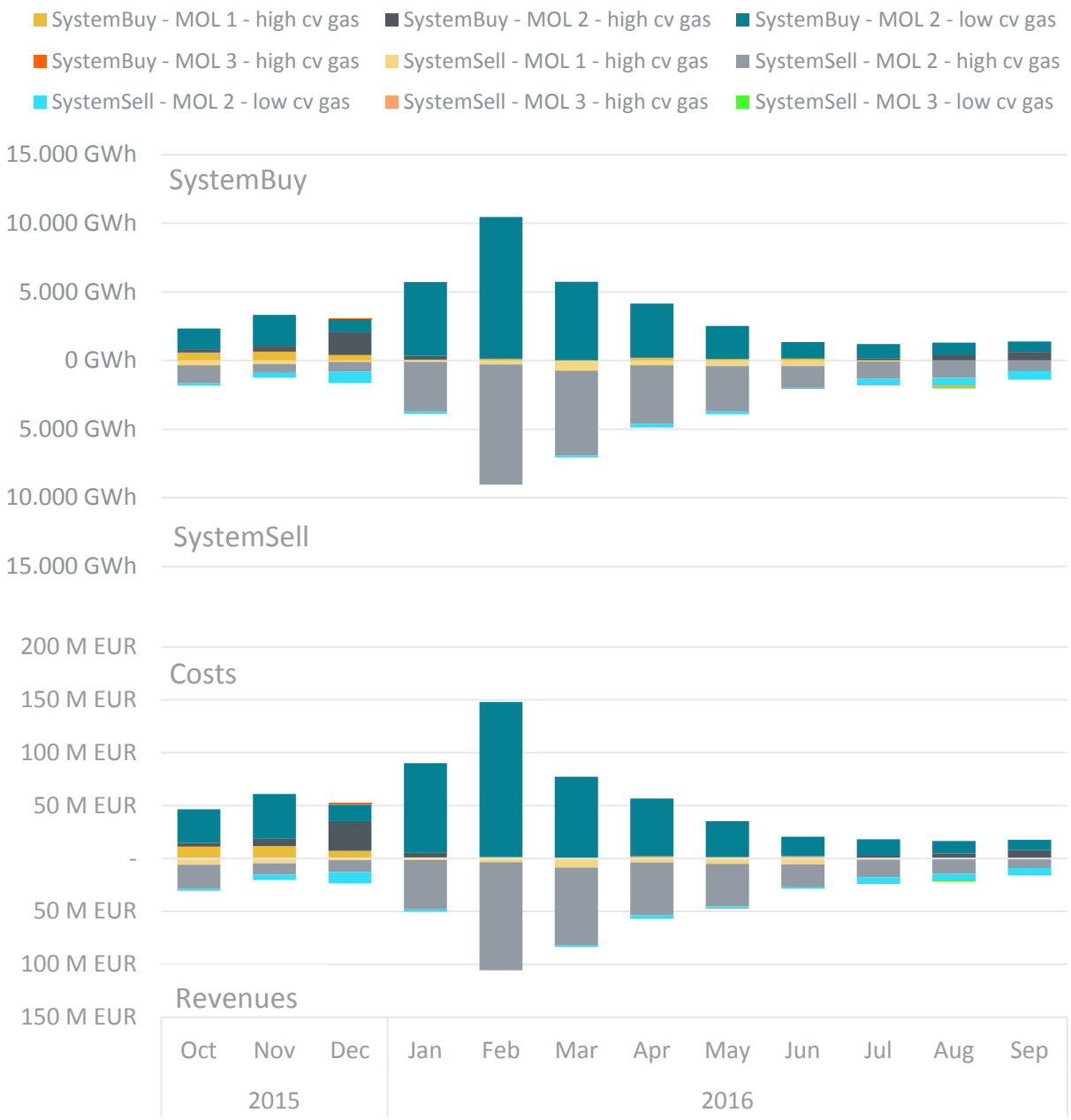

Figure 4: External balancing actions – quantities[1] and costs/revenues (DA and RoD by MOL and month)

[1] Includes balancing actions taken for gas quality conversion purposes.

Figure 5: External balancing actions – quantities and costs/revenues (Hour by MOL and month)

Development of SystemBuy and SystemSell prices by merit order rank

In this chapter we provide information on the lowest ("min"), highest ("max") and average ("mean") monthly procurement prices we paid and received within each merit order rank to meet our respective SystemBuy and SystemSell balancing requirements.

It should be noted that nearly all balancing actions taken in the period covered by this report were priced at market price levels, with the volume-weighted average procurement prices (buy/sell) paid or received in relation to MOL 1 and MOL 2 balancing actions taken on a RoD and DA basis being almost entirely (97% for MOL 1, 95% for MOL 2) in a price range of (+/-) 2 €/MWh relative to the weighted average prices of gas traded on PEGAS.

Figure 6 shows the procurement prices paid and received in relation to the balancing actions carried out in the high CV network areas (MOL 1 and higher) separately for RoD and DA balancing requirements.

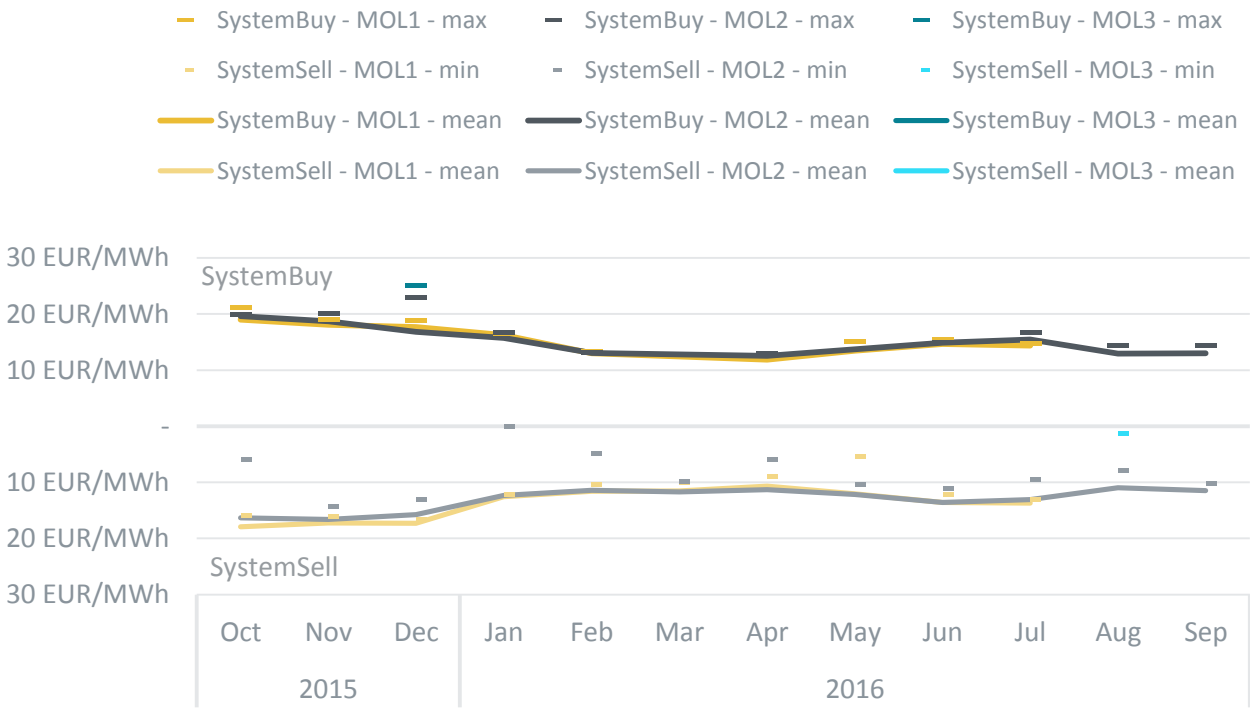

Figure 6: External balancing actions – prices (high CV gas DA and RoD, by MOL and month)

The procurement prices paid and received in relation to the balancing actions carried out in the low CV network areas (MOL 2 and higher) are shown separately for RoD, DA and Hour balancing requirements in Figure 7.

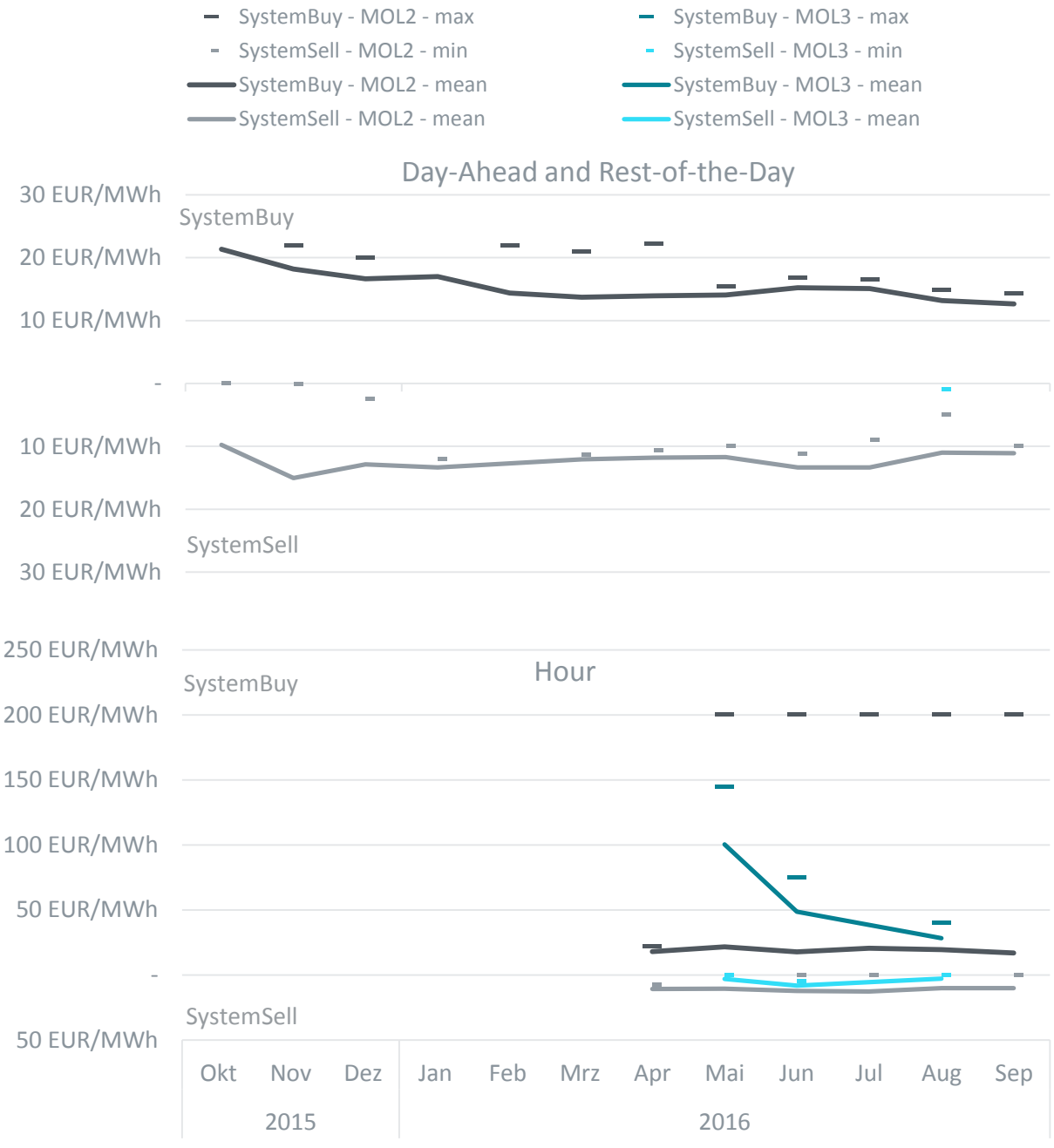

Figure 7: External balancing actions – prices (low CV gas DA, RoD and Hour, by MOL and month)

Deviations from the merit order

Our external balancing actions and related procurement activities are carried out in accordance with a pre-defined merit order set out in the GaBi Gas 2.0 ruling. In exceptional circumstances, however, deviations may occur. The individual deviations from prescribed merit order ranks that occurred in GY 15/16 are described in Table 1:

Date	MOL affected	MOL used	Reasons for deviation
5 Feb 2016	MOL 1	MOL 2	Due to an operational error a global SystemSell balancing requirement was met by trading gas through the PEGAS NCG H order book.
28 Apr 2016	MOL 2	MOL 1	Due to an operational error some SystemSell balancing requirements requiring high CV gas were in part met by trading gas through the global PEGAS NCG order book.
1 May 2016	MOL 2	MOL 4	Due to technical problems an hourly SystemSell balancing requirement at the IP Elten was met by issuing call orders on "Hour" LTO contracts (MOL 4).
2 May 2016	MOL 2	MOL 4	Due to technical problems hourly SystemBuy and SystemSell balancing requirements at the IPs Elten and Vreden were in part met by issuing call orders on "Hour" LTO contracts (MOL 4).
3 May 2016	MOL 2	MOL 4	Due to technical problems an hourly SystemSell balancing requirement at the IPs Elten and Vreden was in part met by issuing call orders on "Hour" LTO contracts (MOL 4).

Table 1: Overview of deviations from merit order

3.2. Procurement of gas for balancing purposes in adjacent market areas

Quantities supplied/received and associated costs

According to section 6(b)(bb) of the operative part of the GaBi Gas 2.0 ruling the MAMs have the right to procure gas for balancing purposes in adjacent market areas. This gives NCG the option to respond to quality-specific balancing requirements arising in the low CV network areas of its market area, to zone-specific balancing requirements arising in the balancing zones LW and LO as well as to (hourly) point-specific balancing requirements arising at system points located on low CV networks by trading spot contracts for delivery of gas at the Dutch TTF on the PEGAS or ICE Endex exchanges, both of which rank at MOL 2.

Figure shows the SystemBuy and SystemSell balancing quantities traded by NCG for TTF delivery in GY 15/16 as well as the associated costs and revenues (unadjusted costs/revenues not including transportation markups or markdowns) on a monthly basis.

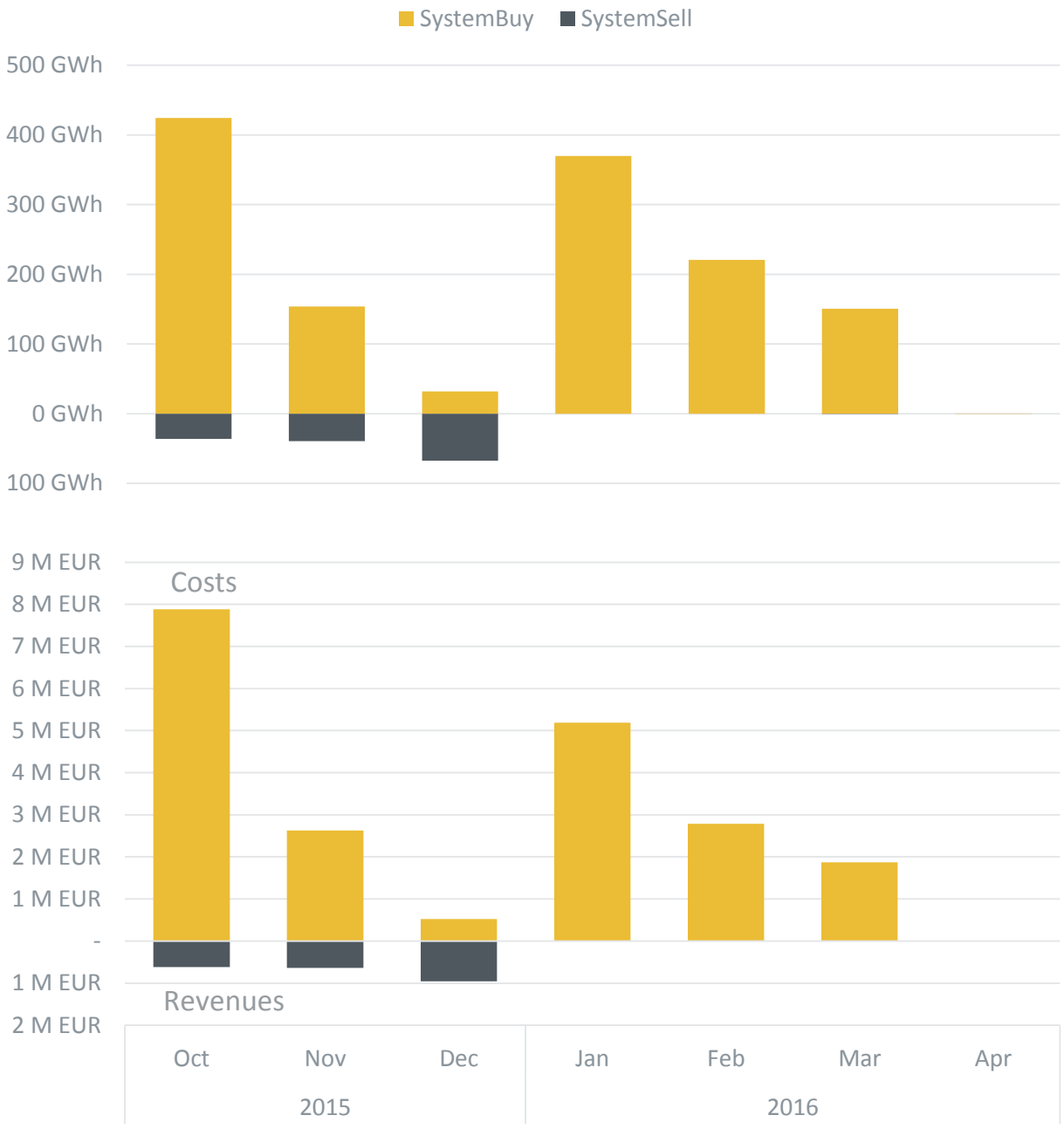

Figure 8: External balancing actions via TTF – quantities and costs/revenues (by month)

CONTRACTED TRANSPORTATION CAPACITY AND CAPACITY UTILISATION

Figure 9 shows the costs by month incurred for transportation capacity booked by NCG for transports to the Netherlands (Exit NCG) and for transports to the market area NetConnect Germany (Entry NCG). Actual daily utilisation of these capacity holdings is shown in Figure 10.

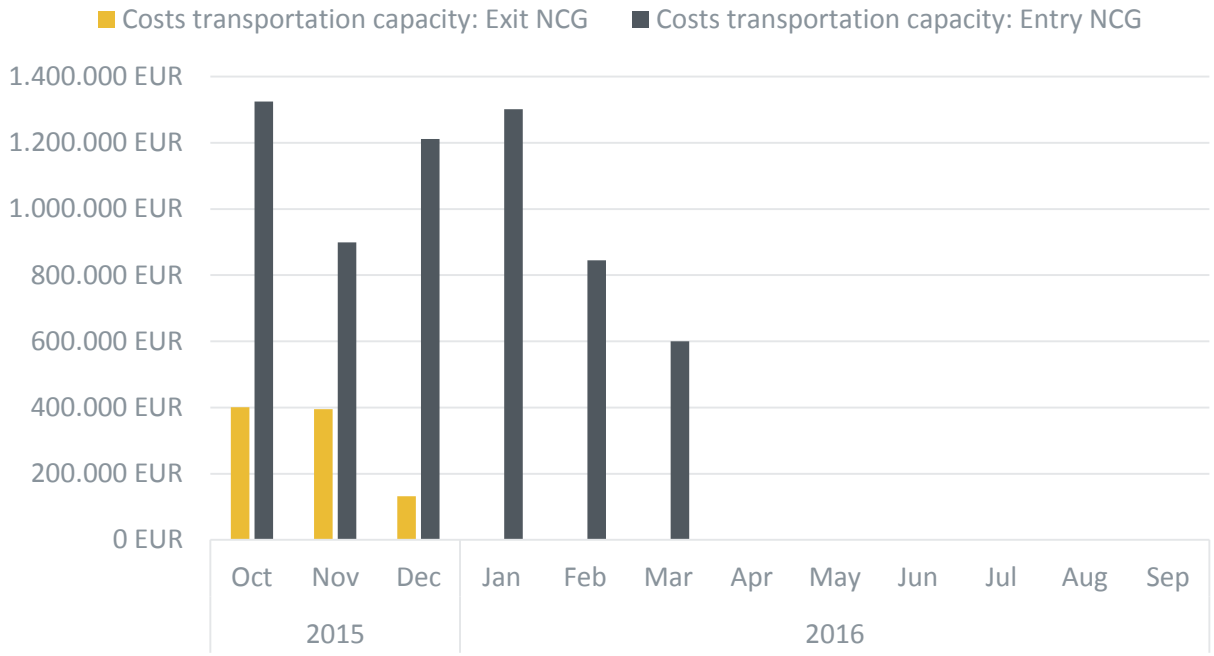

Figure 9: Costs for contracted transportation capacity (by direction and month)

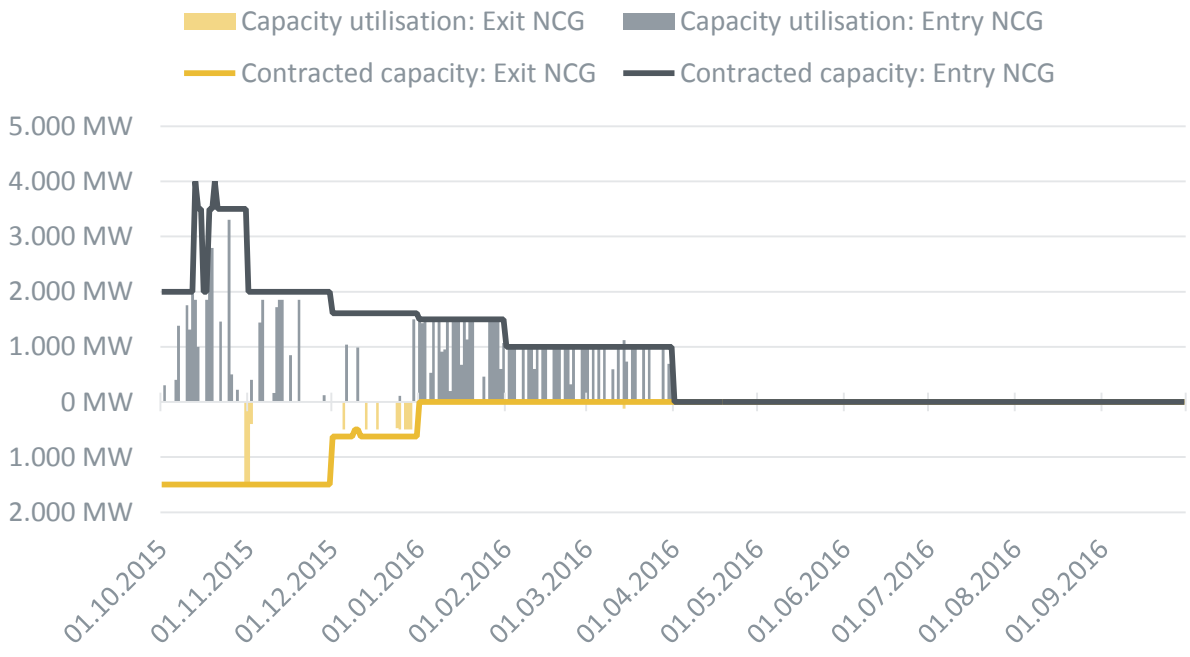

Figure 10: Contracted transportation capacity and capacity utilisation (by direction and day)

Procurement of gas for balancing purposes in adjacent market areas (in accordance with Article 9(3) of the BAL Code)

The option to procure gas for balancing purposes in adjacent market areas provides an appropriate way for us to balance our market area because it allows us to provide a targeted response in a specific gas quality and/or in a specific balancing zone or (in certain hours) at a specific system point by trading title products for delivery at the TTF. We achieve this response by booking the required transportation capacity and nominating the corresponding flows at the relevant IPs. In this way the option to procure gas for balancing purposes in adjacent market areas represents a suitable additional balancing tool supplementing the product portfolio available for balancing actions in our own market area NetConnect Germany.

Our approach to contracting short-term transportation capacity

Since WD capacity products were introduced at the relevant IPs in November 2015, market participants have been able to book the transportation capacity they require in order to be able to offer to supply or receive low CV gas from or to NCG in case of quality-specific, zone-specific or point-specific balancing requirements on a short-term basis, which allows them to offer to supply or receive the required quantities of low CV gas directly in the market area NetConnect Germany. This development permitted us to reduce the monthly amounts of transportation capacity we used to book in order to secure the availability of transportation capacity in case of quality-specific or zone-specific balancing requirements in the low CV network areas of our market area, which we did successively in the months up to and including March 2016. Since April 2016 we have been meeting our transportation capacity requirements by booking short-term capacity products (WD and DA) on a case-by-case basis. This approach is in accordance with the requirements set out in Article 9(3) of the BAL Code.

Calculation methodology used to calculate transportation markups and markdowns

According to the last sentence of section 6(b)(bb) of the operative part of the GaBi Gas 2.0 ruling, the transportation costs incurred for the receipt or delivery of gas from or to an adjacent market area shall be appropriately taken into account by the MAM. The resulting transportation markups and markdowns are included in the MAM's calculations in addition to the commodity costs or revenues incurred or generated in the adjacent market area when determining the applicable positive and negative daily imbalance prices.

Since 1 October 2015, NCG and GASPOOL have applied the following calculation methodology to determine appropriate transportation markups and markdowns:

- Separate monthly transportation markups and markdowns are calculated for SystemBuy and SystemSell balancing requirements.
- For SystemBuy transactions the MAM applies a transportation markup and for SystemSell transactions a transportation markdown, with the applicable markup and markdown being added to and deducted from the price payable in respect of the relevant exchange trade, respectively.
- The applicable transportation markups and markdowns are calculated according to the following formula:

$$\text{transportation markup/markdown} = \frac{\text{daily transportation tariff (€/MWh/h)}}{\text{Ø utilisation period (h)}}$$

- Calculation of the daily transportation tariff:
  - The calculations are based on the capacity tariffs (daily capacity tariffs according to price sheet) applicable during the relevant validity period on the Dutch and German sides of the IPs the MAM uses for transportation purposes.
  - Where gas transports are effected via more than one IP, the applicable daily tariff for each side of the border is calculated as the arithmetic mean of all daily tariffs payable on that side of the border.
  - The daily capacity tariffs thus calculated are then added together for both sides of the border.
- Determination of the average utilisation period:
  - For the purpose of calculating the utilisation period only those days during the relevant six-month period on which the booked transportation capacity is actually used are taken into account:

$$\text{daily utilisation period} = \frac{\text{total quantity supplied/received on the day (MWh)}}{\text{maximum hourly quantity supplied/received on the day (MWh/h)}}$$

  - The average utilisation period is calculated on the basis of the daily utilisation periods thus determined (Ø utilisation period (h): arithmetic mean of the daily utilisation periods), with separate average utilisation periods being calculated for the winter (1 October to 31 March) and summer (1 April to 30 September) periods.
  - All calculations are based on the data available for the last complete winter or summer period, as the case may be.

Future adjustments to the calculation methodology used to calculate transportation markups and markdowns

If we continue to apply the current calculation methodology to determine future transportation markups and markdowns, the monthly transportation markups applicable to SystemBuy balancing actions from April 2017 forward will have to be calculated on the basis of a single balancing action taken via the TTF. For SystemSell balancing requirements no capacity was booked at all in the months from April 2016 and so no SystemSell balancing actions were taken via the TTF, either. This means that, mathematically, no transportation markdowns can be calculated for this type of balancing requirement for future periods starting in or after April 2017. The MAMs are therefore of the view that the calculation methodology currently used to calculate transportation markups and markdowns should be adjusted to reflect these developments so that the MAMs will continue to be able to determine appropriate transportation markups and markdowns reflecting actual utilisation periods in the future.

3.3. Number of trades executed for balancing purposes (in accordance with Article 9(4) of the BAL Code)

Below we provide an overview of the monthly trading activities by merit order rank we carried out for balancing purposes. In relation to our MOL 2 balancing actions separate information is provided for trades effected in our own market area and trades effected in adjacent market areas, respectively.

Our approach to determining the number of trades executed for balancing purposes

We have determined the number of trades NCG executed to meet its balancing requirements separately for each hour of each gas day based on defined balancing criteria. Where several trades were entered into for the same term in response to the same balancing criterion, these are shown as a single trade. Where several trades were entered into for the same hour but in response to different balancing criteria, these are treated as individual trades and summed up over the relevant period of analysis.

The following balancing criteria are used by NCG:

- MOL 1: Global balancing requirement, SystemBuy, delivery of gas at the NCG VTP
- MOL 1: Global balancing requirement, SystemSell, delivery of gas at the NCG VTP
- MOL 2: Quality-specific/zone-specific balancing requirement, SystemBuy, delivery of gas at the NCG VTP (high CV gas/low CV gas)
- MOL 2: Quality-specific/zone-specific balancing requirement, SystemSell, delivery of gas at the NCG VTP (high CV gas/low CV gas)
- MOL 2: Quality-specific/zone-specific balancing requirement, SystemBuy, delivery of gas at the TTF (VTP)
- MOL 2: Quality-specific/zone-specific balancing requirement, SystemSell, delivery of gas at the TTF (VTP)
- MOL 3: Point-specific balancing requirement, SystemBuy, delivery of gas at the NCG VTP (high CV gas/low CV gas)
- MOL 3: Point-specific balancing requirement, SystemSell, delivery of gas at the NCG VTP (high CV gas/low CV gas)

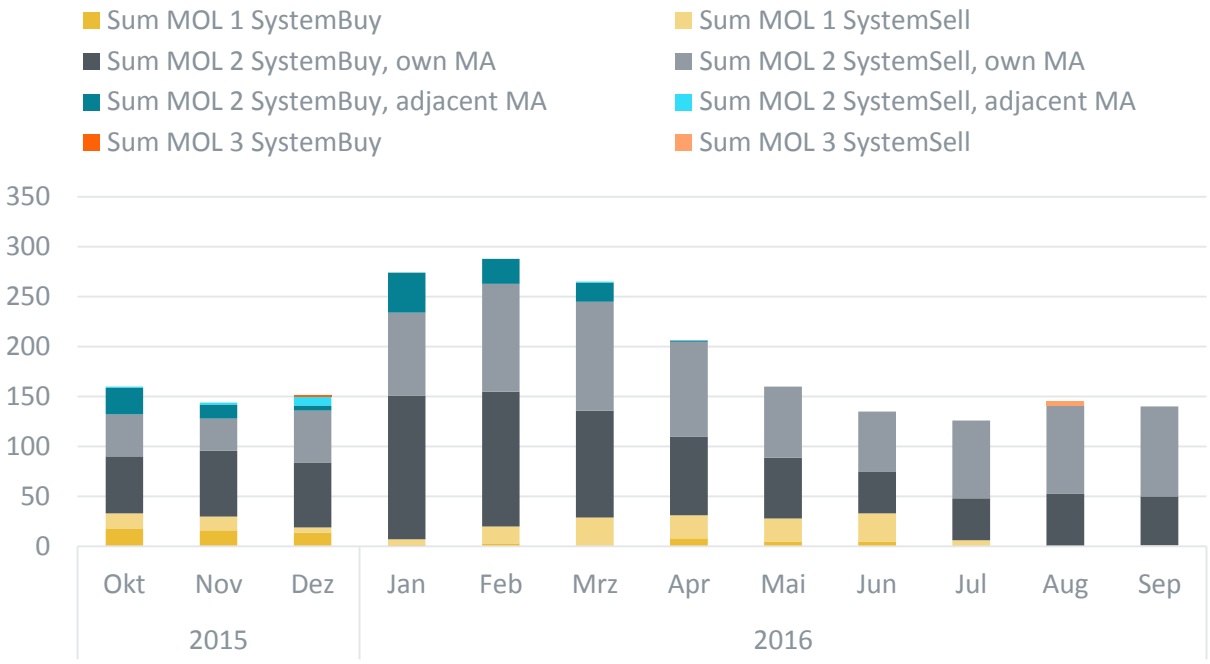

Figure 11: Number of trades (RoD and DA by month)

4. PROCUREMENT AND USE OF BALANCING SERVICES (MOL 4)

4.1. LONG-TERM OPTIONS (RoD, DA)

PRODUCT DESCRIPTION

Where the bilateral balancing product "Commodity" is procured on a long-term basis, it takes the form of so-called Long-Term Options (LTO), which are contracted bilaterally in advance and award NCG the right to buy or sell (as the case may be) gas to or from the relevant provider at any time throughout the agreed contract period. These LTOs are procured to provide a buffer against so-called "dynamic effects" in the balancing zones for which they are contracted as well as to increase supply security as required under the BMWi policy paper (see chapter 7). "Dynamic effects" is the term we use to refer to situations where pipeline inventory changes must be effected at short notice in a specific balancing zone and where the required response cannot be provided by global balancing products as – given the limited maximum rates at which gas can flow through the system – it cannot be ensured that the required deliveries can be made in the balancing zone affected in due time.

Where an LTO is contracted on a "RoD" basis, the relevant provider has an obligation to supply or receive a specified gas quantity at a constant hourly rate on a specified gas day on receiving an instruction to this effect from NCG (this instruction is referred to as a "call order"), starting from the hour stated in the call order up until the end of the relevant gas day. Except where a call order relates to the last hour of a gas day only, the product variant "RoD" does not involve the supply or receipt of gas during specified individual hours of a gas day. Where an LTO is contracted on a "DA" basis, the relevant provider has an obligation to supply or receive a specified gas quantity at a constant hourly rate throughout the entire next gas day on receiving a call order from NCG. Call orders for both of these product variants are issued at least three hours before the hour from which the instructed gas quantity is to be supplied or received ("call lead time").

In order to secure its market area against the above-mentioned dynamic effects and to ensure availability of gas for the purpose of implementing the measures set out in the BMWi policy paper, NCG conducts transparent tender processes in the course of which it invites bids for the relevant balancing zones. The gas requirements to be tendered out in each case are published beforehand as required under the GaBi Gas 2.0 ruling and the BAL Code. Each LTO provider may specify a capacity charge that will be applied throughout the relevant contract period so as to remunerate them for procuring their availability to supply or receive gas from or to NCG. NCG pays these capacity charges to providers irrespective of whether any call orders are actually issued on their contracts or not. Whenever a call order is issued on a contracted LTO, NCG makes a payment to the relevant provider where gas is supplied by the provider or receives a payment from the provider where gas is received by the provider. These payments are determined by multiplying the instructed gas quantities supplied or received by the provider (as the case may be) by the commodity charge in EUR per MWh previously quoted by the provider in its corresponding bid, which remains unchanged throughout the agreed contract period.

Bids for LTO contracts may be submitted by all balancing group managers who have successfully completed the prequalification process and are thus eligible to participate in our bilateral balancing market. Both the bid submission and contract award processes are conducted through the bilateral bidding platform operated by NCG.

The individual specifications for the LTO product are provided in Table 2:

LTO parameter	Specifications
Product variant	Rest-of-the-Day (RoD), Day-Ahead (DA)
Product category	Zone-specific
Bid delivery rate	10 MWh/h per lot
Point of delivery	Point(s) located within relevant balancing zone as specified in invitation to tender: HN (high CV North), HM (high CV Central), HS (high CV South), LW (low CV West), LO (low CV East)
Pricing	Capacity charge and commodity charge
Required service availability	Every gas day throughout the agreed contract period
Call lead time	3 hours

Table 2: LTO product specifications (RoD/DA)

TENDER CONTRACT PERIODS AND TENDER RESULTS

Below we provide an overview of the balancing requirements in each balancing zone in each relevant contract period for which we invited LTO bids on a RoD[2] basis along with the results of the corresponding tender processes. The identity of providers whose bids were accepted by NCG has been anonymised.

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charges[3] (EUR)	Ø Commodity charges (EUR/MWh)
Q4 2015	3,590	14,060	3,590	€1,427,118	€20.47
Q1 2016	3,370	11,260	3,370	€1,195,461	€16.98
Q2 2016	-	-	-	-	-
Q3 2016	-	-	-	-	-

Table 3: SystemBuy LTO (summary, all balancing zones) [4]

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charg-es (EUR)	Ø Commodity charges (EUR/MWh)
Q4 2015	1,420	7,760	1,420	€501,438	€20.45
Q1 2016	1,310	4,190	1,310	€418,251	€16.99
Q2 2016	-	-	-	-	-
Q3 2016	-	-	-	-	-

Table 4: SystemBuy LTO (summary, balancing zone: HN)

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charg-es (EUR)	Ø Commodity charges (EUR/MWh)
Q4 2015	2,170	6,300	2,170	€925,680	€20.48
Q1 2016	2,060	7,070	2,060	€777,210	€16.97
Q2 2016	-	-	-	-	-
Q3 2016	-	-	-	-	-

Table 5: SystemBuy LTO (summary, balancing zone: HS)

[2] No bids were invited for the DA product variant.

[3] Information on the capacity charges payable per contracted lot is published on our website (though not at provider level): https://www.net-connect-germany.com

[4] No call orders (neither SystemBuy nor SystemSell) were issued on the contracted LTOs in any of the quarters listed, so no commodity charges were paid. For the sake of clarity and given the large number of bids with varying commodity charges we received, we decided not to show the individual commodity charges quoted per lot. The individual commodity charges quoted per contracted lot are published on the NCG website: https://www.net-connect-germany.com.

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charges (EUR)	Ø Commodity charges (EUR/MWh)
Q4 2015	-	-	-	-	-
Q1 2016	-	-	-	-	-
Q2 2016	3,170	14,170	3,170	€764,162	€12.86
Q3 2016	3,990	18,670	3,990	€808,164	€15.49

Table 6: SystemSell LTO (summary, all balancing zones)

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charg-es (EUR)	Ø Commodity charges (EUR/MWh)
2015/Q4	-	-	-	-	-
2016/Q1	-	-	-	-	-
2016/Q2	1,250	7,040	1,250	€273,834	€12.37
2016/Q3	1,630	9,210	1,630	€305,138	€15.10

Table 7: SystemSell LTO (summary, balancing zone: HN)

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity charg-es (EUR)	Ø Commodity charges (EUR/MWh)
2015/Q4	-	-	-	-	-
2016/Q1	-	-	-	-	-
2016/Q2	1,920	7,130	1,920	€490,328	€13.17
2016/Q3	2,360	9,460	2,360	€503,026	€15.76

Table 8: SystemSell LTO (summary, balancing zone: HS)

Frequency of use of Long-Term Options (RoD, DA)

We did not have to use any of the LTOs we had contracted on a RoD basis for GY 15/16. All global and quality-specific balancing requirements were fully met by way of MOL 1, MOL 2 or MOL 3 balancing actions. LTO contracts for DA balancing requirements were not put out to tender.

Review of options for reducing our use of Long-Term Options (RoD, DA) in accordance with Article 8(6) of the BAL Code

LTOs (RoD, DA) are a zone-specific balancing product and as such serve to ensure availability of gas in all balancing zones on a long-term basis. The LTO (RoD, DA) requirements to be put out to tender are determined on the basis of the scope of the expected dynamic effects in the relevant balancing zones, on the one hand, and on the basis of the measures to improve supply security set out by the BMWi in its policy paper of 16 December 2015, on the other hand. Especially in view of the BMWi's call for a strengthening of the balancing market by way of increasing the contract volumes of long-term balancing products it is not likely that we will be able to reduce the contract volumes of our long-term balancing products ranking at MOL 4 in the future. We could only reduce these contract volumes if it was ensured that the existing zone-specific MOL 2 balancing products offered on the exchange were available at all times under any possible scenario so that we could always procure all balancing quantities needed to meet our balancing requirements by trading these products. As depending on the circumstances this is not always the case, we cannot currently reduce our contract volumes.

4.2. Long-Term Options (Hour)

Product description

Since May 2016 we have also contracted LTOs on an hourly basis (product variant "Hour") in order to be able to meet our hourly balancing requirements at the IPs Elten/Zevenaar and Vreden/Winterswijk. Until May 2016 we used our balancing product "Flexibility" to structure the gas flows at these IPs during the gas day. Hourly LTOs are a long-term sub-category of our bilateral balancing product "Commodity" and award NCG the right to buy or sell (as the case may be) gas to or from the relevant provider in any specified individual hour throughout the agreed contract period. Call orders may be issued for individual hours during each gas day but are subject to a call lead time of at least three hours. The tendering and pricing rules for LTOs contracted on a RoD and DA basis (see chapter 4.1) apply accordingly to LTOs contracted on an hourly basis.

The individual specifications for the "Hour" product variant of the LTO product are provided in Table 9:

LTO parameter	Specifications
Product variant	Hour
Product category	Point-specific
Bid delivery rate	10 MWh/h per lot
Point of delivery	Specified system point, as stated in the relevant invitation to tender: IP Elten/Zevenaar, IP Vreden/Winterswijk
Pricing	Capacity charge and commodity charge
Required service availability	Every hour throughout the agreed contract period
Call lead time	3 hours

Table 9: LTO product specifications (Hour)

TENDER CONTRACT PERIODS AND TENDER RESULTS

Below we provide an overview of the hourly balancing requirements at each relevant IP in each relevant contract period along with the results of the corresponding tender processes. The identity of providers whose bids were accepted by NCG has been anonymised.

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs[5] (EUR)	Ø Commodity charges (EUR/MWh)
May 2016	1,050	4,250	1,050	€501,896	€11.66
June 2016	1,050	4,650	1,050	€447,332	€13.47
Q3 2016	1,050	4,150	1,050	€1,201,881	€13.82

Table 10: SystemBuy Vreden/Winterswijk (summary) [6]

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs[7] (EUR)	Ø Commodity charges (EUR/MWh)
May 2016	1,050	4,750	1,050	€315,021	€11.58
June 2016	1,050	4,650	1,050	€287,501	€13.35
Q3 2016	1,050	4,150	1,050	€851,685	€14.44

Table 11: SystemSell Vreden/Winterswijk (summary) [8]

[5] Information on the capacity charges payable per contracted lot is published on our website (though not at provider level): https://www.net-connect-germany.com

[6] For the sake of clarity and given the large number of bids with varying commodity charges we received, we decided not to show the individual commodity charges quoted per lot. The individual commodity charges quoted per contracted lot are published on the NCG website: https://www.net-connect-germany.com.

[7] See footnote No. 6.

[8] See footnote No. 7.

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
May 2016	3,150	12,600	3,150	€1,488,975	€11.70
June 2016	3,150	11,450	3,150	€1,222,158	€13.33
Q3 2016	3,150	10,960	3,150	€3,212,134	€12.11

Table 12: SystemBuy Elten/Zevenaar (contracts and call orders)

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
May 2016	3,150	12,100	3,150	€844,305	€11.45
June 2016	3,150	11,450	3,150	€806,023	€13.38
Q3 2016	3,150	10,950	3,150	€2,384,893	€14.43

Table 13: SystemSell Elten/Zevenaar (contracts and call orders)

Frequency of use of Long-Term Options (Hour)

Figure 12 shows the aggregate monthly quantities that were supplied and received under LTO contracts for the "Hour" product variant at the two relevant IPs.

Review of options for reducing our use of Long-Term Options (Hour) in accordance with Article 8(6) of the BAL Code

LTO bids for the "Hour" product variant were invited for the first time for the delivery month May 2016. We do not yet have sufficient practical experiences with the point-specific spot contracts traded on the exchange for the delivery of gas in individual hours that would allow us to assess whether sufficient balancing quantities will always be available, especially during the winter months. As required under the GaBi Gas 2.0 ruling, from November 2016 we will no longer invite bids for our existing bilateral MOL 3 product for the delivery of gas in individual hours at the IPs Elten/Zevenaar and Vreden/Winterswijk to reflect the fact that equivalent products are now available on the exchange. This will make the LTOs contracted by NCG on an "Hour" basis the only fall-back balancing tool in situations when the exchange is unavailable or the balancing quantities available through the appropriate exchange-traded products are insufficient. We could only reduce these contract volumes if it was ensured that the existing point-specific MOL 2 balancing products offered on the exchange for the delivery of gas in individual hours were available at all times under any scenario so that we could always procure all balancing quantities needed to meet our balancing requirements by trading these products. As depending on the circumstances this is not always the case, we cannot currently reduce our contract volumes for LTOs in the "Hour" product variant.

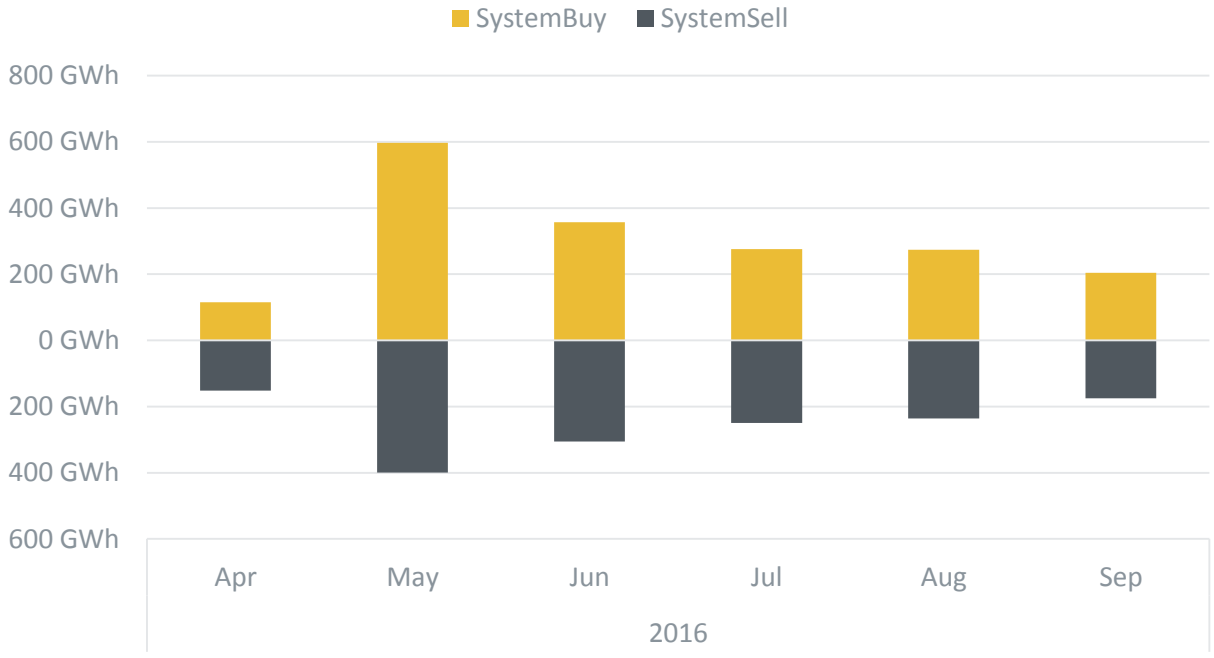

Figure 12: External balancing actions – LTOs (Hour, both IPs by month)

4.3. Balancing product "Flexibility" (used until May 2016)

Product description

Under contracts for our long-term bilateral balancing product "Intraday Flexibility Service involving the Physical Delivery and Receipt of Low CV Gas and the Physical Return of such Low CV Gas on a Long-Term Basis" (the so-called balancing product "Flexibility"), providers used to provide intraday system flexibility services by physically supplying or receiving low CV gas from or to NCG on an hourly basis at the IPs Elten/Zevenaar and/or Vreden/Winterswijk when necessary to balance an undersupply or oversupply of low CV gas in the market area.

Providers offering the "Flexibility" balancing product had an obligation to procure their availability to supply or receive gas at the relevant IPs connecting the German and Dutch gas transmission systems at any time without notice. Providers who wished to provide these intraday flexibility services had to be registered shippers with a so-called "balancing allocation role" for their Dutch portfolio for their offtakes at the relevant IP(s) and had to book the required entry and exit capacity on the Dutch and German sides of the relevant IP(s). In order to ensure that the provider would be able to receive gas from NCG at any time during each gas day the provider had to submit hourly output nominations on the Dutch side and corresponding input nominations[9] on the German side of the relevant IP(s), both exactly equal to the lot size contracted by NCG, throughout the entire agreed contract period.

The differences between the gas quantities physically transported under a Flexibility contract and the gas quantities nominated by the relevant shipper were recorded as part of the shipper's Dutch portfolio as well as in a separate flexibility account set up for the provider on the German side of the IP. The flexibility accounts of all providers were balanced by NCG at the end of each day. The accrued balances as well as any overruns or underruns recorded in the flexibility account of a provider were settled between NCG and the provider in accordance with the agreed contractual arrangements.

In order to meet its within-day flexibility requirements at the relevant IPs, NCG conducted transparent tender processes, with its gas requirements at each IP published beforehand. Providers only had the right to specify a capacity charge in order to remunerate them for procuring the possibility for NCG to supply or receive gas from or to the provider on a within-day basis, which would be applied without changes throughout the entire agreed contract period. Providers had no right to apply commodity charges.

Bids for Flexibility contracts could be submitted by all balancing group managers who had successfully completed the prequalification process and were thus eligible to participate in our bilateral balancing market. Both the bid submission and contract award processes were conducted through the bilateral bidding platform operated by NCG.

[9] The provider also had the right to authorise a third party (acting as a vicarious agent) to ensure compliance with the requirements relating to daily operations.

The individual specifications for the Flexibility product are provided in Table 14:

Product parameter	Specifications
Product type	Provision of intraday flexibility services
Product category	Point-specific
Bid delivery rate	10 MWh/h per lot
Point of delivery	Specified system point, as stated in the relevant invitation to tender: IP Elten/Zevenaar, IP Vreden/Winterswijk
Pricing	Capacity charge
Required service availability	Every hour throughout the agreed contract period
Call lead time	0 h

Table 14: Flexibility product specifications

TENDER CONTRACT PERIODS AND TENDER RESULTS

Below we provide an overview of the within-day structuring requirements at each relevant IP in each relevant contract period along with the results of the corresponding tender processes. The identity of providers whose bids were accepted by NCG has been anonymised.

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)
Q4 2015	3,150	7,780	3,150	€14,502,630.00
Q1 2016	3,150	8,580	3,150	€13,899,993.00
April 2016	3,150	10,750	3,150	€3,579,544.00

Table 15: Elten/Zevenaar (summary)

Contract period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)
Q4 2015	1,050	3,690	1,050	€4,863,115
Q1 2016	1,050	3,310	1,050	€4,332,560
April 2016	1,050	4,140	1,050	€1,012,752

Table 16: Vreden/Winterswijk (summary)

Frequency of use of the balancing product "Flexibility"

In this chapter we provide information on the capacity limits available to NCG under the Flexibility contracts agreed with providers as well as on the actual daily utilisation of these intraday flexibility services at the two IPs Vreden/Winterswijk (Figure 13) and Elten/Zevenaar (Figure 14) in GY 15/16.

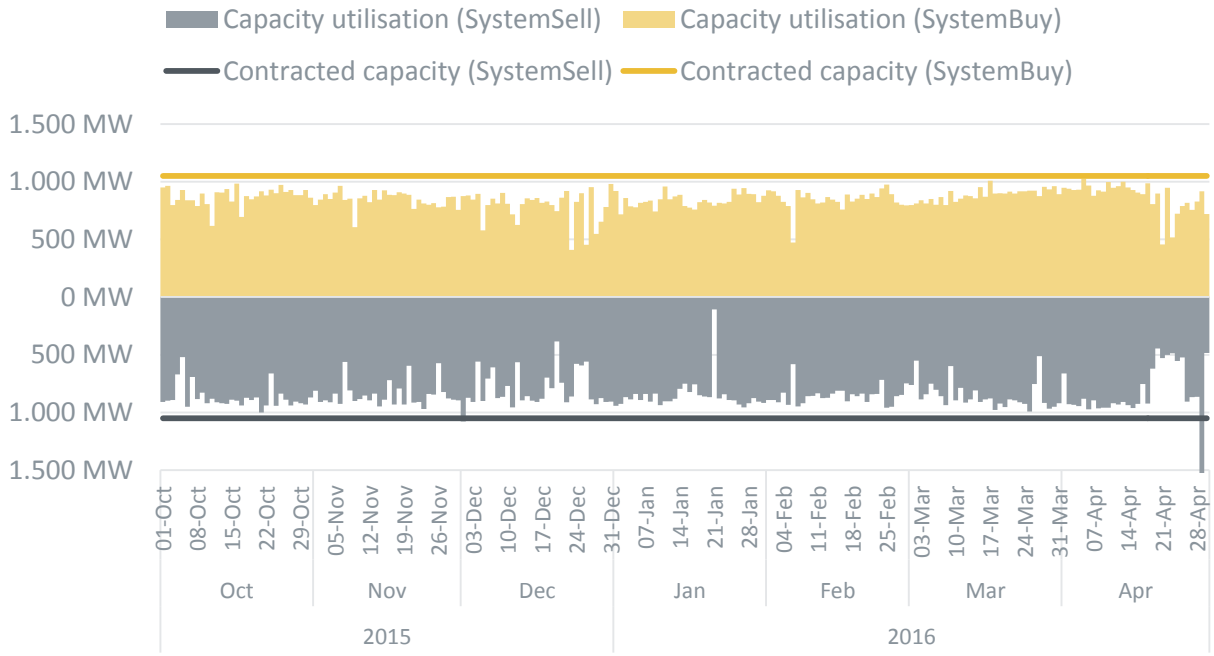

Figure 13: External balancing actions – Flexibility (Vreden/Winterswijk, daily capacity utilisation)

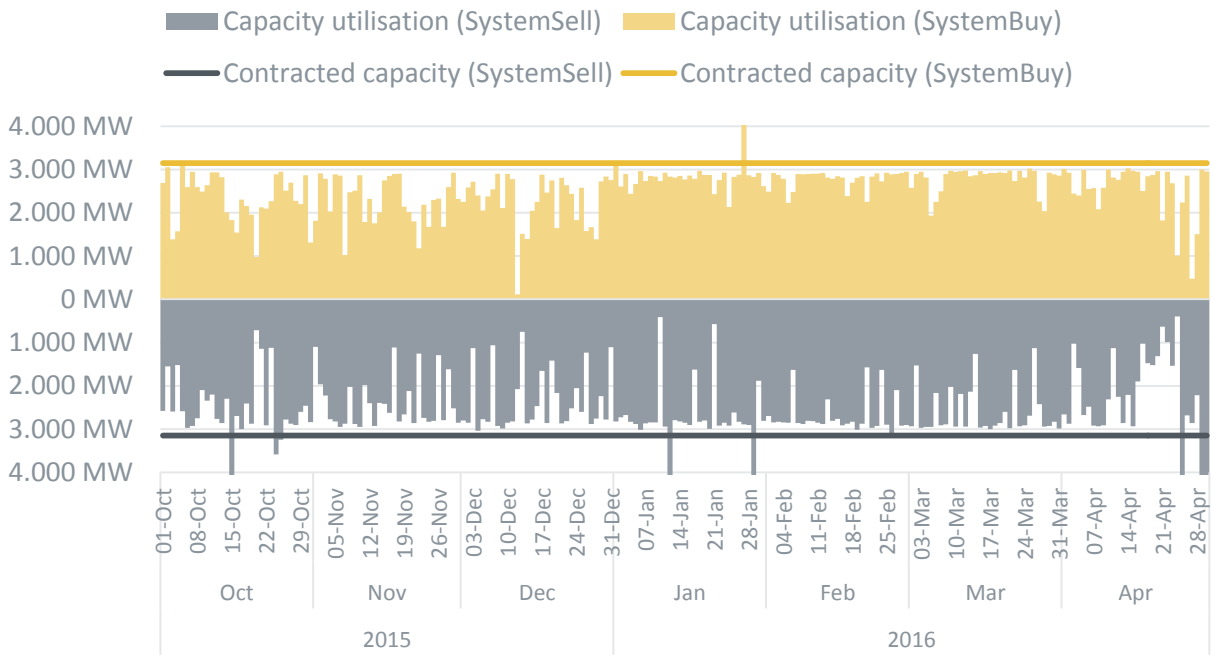

Figure 14: External balancing actions – Flexibility (Elten/Zevenaar, daily capacity utilisation)

Review of options for reducing our use of the balancing product "Flexibility" in accordance with Article 8(6) of the BAL Code

Until 1 May 2016, the date on which operational balancing accounts (OBAs) were introduced between the adjacent transmission system operators at the IPs Elten/Zevenaar and Vreden/Winterswijk, we only[10] used our balancing product "Flexibility" to meet our within-day flexibility requirements at these IPs.

Since 1 May 2016 we have been meeting our within-day flexibility requirements at the above IPs through point-specific short-term or long-term balancing products under which gas must be delivered in specified hours subject to a call lead time of three hours, which we trade on the exchange or contract bilaterally. Bids for the balancing product "Flexibility" were invited for the last time for the month April 2016, which is also the month in which the product was last used.

[10] Point-specific order books for the delivery of gas at the IPs Elten and Vreden on an hourly basis were introduced on the PEGAS trading platform on 31 March 2016. During a transition phase in April 2016 some of our flexibility requirements were also met by trading gas through these order books on the exchange.

5. LOCATIONAL BALANCING PRODUCTS

NCG uses zone-specific balancing products to meet external balancing requirements that relate to a specific balancing zone. Balancing requirement that relate to specific system points are met by trading point-specific balancing products. Trading participants and providers trading zone- or point-specific balancing products have an obligation to cause a physical effect in the relevant balancing zone or at the agreed system point (as the case may be). Point-specific balancing products are traded for delivery on a RoD and DA basis as well as for hourly delivery, in which case delivery must be made in an exactly specified delivery hour (product variant "Hour"). Below we describe our use of zone- and point-specific balancing products in the context of RoD and DA balancing requirements. Our use of "Hour" balancing products for the purpose of structuring gas flows at the IPs Elten/Zevenaar and Vreden/Winterswijk during the gas day is described in chapter 4.2.

In the balancing product portfolio currently used by NCG zone-specific balancing products rank at MOL 2 and MOL 4. Until April 2016 providers also had the option to offer our bilateral short-term balancing product ranking at MOL 3 as a zone-specific balancing product by specifying individual balancing zones as the point of delivery. When zone-specific spot contracts were introduced on PEGAS on 31 March 2016, which require physical delivery in a specified balancing zone, our bilateral short-term MOL 3 product allowing for delivery in specified balancing zones was replaced by a point-specific product that requires delivery at a specified system point.

Figure 15 shows the zone- and/or point-specific balancing products we used in each month to meet RoD and/or DA balancing requirements, separately for SystemBuy and SystemSell balancing actions. In GY 15/16 we only used these products when the merit order so mandated, that is only in situations where the exchange was unavailable due to downtimes of the PEGAS trading platform and only to respond to quality-specific balancing requirements, not to meet zone- or point-specific RoD or DA balancing requirements. In GY 15/16 we did not use any zone-specific balancing products ranking at MOL 2. In view of this background we currently see no need to take zone-specific MOL 2 balancing products into account when determining the applicable daily imbalance charges.

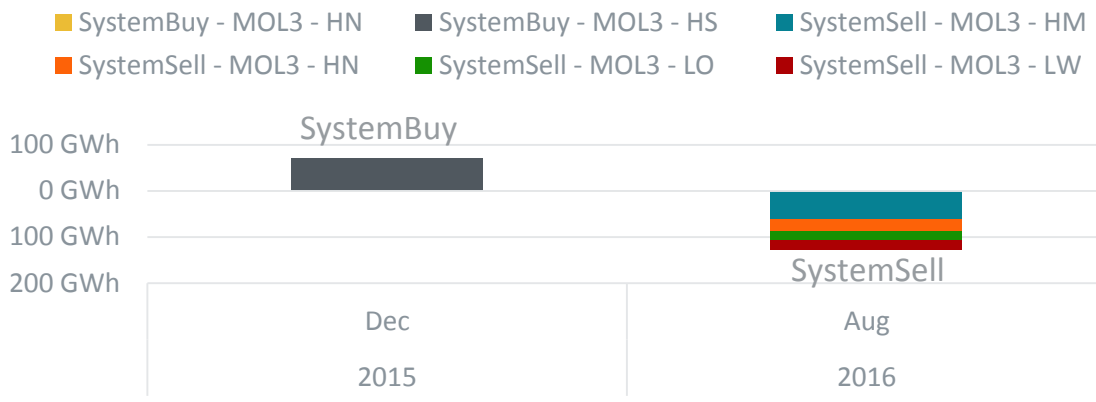

Figure 15: External balancing actions – zone-specific balancing actions (by balancing zone and month)

6. ALLOCATION OF COSTS TO THE BALANCING NEUTRALITY ACCOUNTS

All system balancing costs that can be divided between the balancing neutrality accounts in accordance with the cost causation principle based on the corresponding imbalances determined for network operators' network balancing accounts or balancing group managers' balancing groups are allocated using the applicable daily allocation key. Annual allocation keys are only applied if the relevant cost items (e.g. capacity charges payable under LTO contracts) cannot clearly be allocated according to causation. As a rule, the applicable annual allocation key is calculated as the mean of all daily allocation keys applicable during the relevant gas year. This mean can be calculated using an arithmetic or volume-weighted approach. NCG has chosen to apply the arithmetic approach for the following reasons:

We consider the determination of an arithmetic mean to be an appropriate approach as the balancing quantities procured for each day cannot directly be related to the cost and revenue items that are allocated to the individual balancing neutrality accounts based on the annual allocation key. Compared with the arithmetic approach, the application of a volume-weighted mean would increase complexity without providing a better measure of causation.

We are therefore of the view that the annual allocation keys should continue to be calculated as an arithmetic mean in the future.

7. Supply security measures in accordance with the BMWi policy paper (tender invitations for February and March 2016)

Tender contract periods and tender results

In order to increase supply security at short notice, NCG and GASPOOL invited supplementary bids for LTOs on a RoD basis for February and March 2016 in accordance with the policy paper published by the BMWi on 16 December 2015 and contracted the required additional volumes.

Below is an overview of the tender results for these supplementary LTOs (RoD) put out to tender for February and March 2016 by contract period. The identity of providers whose bids were accepted by NCG has been anonymised.

Period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
2016/W5-6	9,000	27,460	9,000	€1,609,617	€14.71
2016/W7	7,900	27,730	7,900	€688,461	€13.60
2016/W8	7,000	22,590	7,000	€517,241	€12.43
2016/W9	5,200	20,340	5,200	€304,443	€11.96
2016/W10	3,800	16,040	3,800	€177,258	€11.57
2016/W11	2,200	9,320	2,200	€89,035	€12.23

Table 17: SystemBuy LTO (summary, all balancing zones)

Period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
2016/W5-6	5,300	15,340	5,300	€764,226	€14.61
2016/W7	4,600	15,510	4,600	€343,314	€13.27
2016/W8	4,000	11,970	4,000	€231,558	€12.12
2016/W9	2,900	11,120	2,900	€129,584	€11.90
2016/W10	2,000	8,920	2,000	€67,202	€11.43
2016/W11	900	4,400	900	€15,437	€12.56

Table 18: SystemBuy LTO (summary, balancing zone: HS)

Period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
2016/W5-6	3,680	10,700	3,680	€844,155	€14.83
2016/W7	2,990	11,400	2,990	€313,699	€14.26
2016/W8	2,990	10,600	2,990	€284,846	€12.84
2016/W9	2,290	9,200	2,290	€174,210	€12.02
2016/W10	1,780	7,100	1,780	€109,036	€11.68
2016/W11	1,280	4,900	1,280	€72,920	€11.97

Table 19: SystemBuy LTO (summary, balancing zone: LO)

Period	Required (MWh/h)	Offered (MWh/h)	Contracted (MWh/h)	Capacity costs (EUR)	Ø Commodity charges (EUR/MWh)
2016/W5-6	20	920	20	€1,237	€16.24
2016/W7	310	820	310	€31,449	€12.24
2016/W8	10	20	10	€838	€16.00
2016/W9	10	20	10	€649	€15.70
2016/W10	20	20	20	€1,020	€14.75
2016/W11	20	20	20	€678	€14.30

Table 20: SystemBuy LTO (summary, balancing zone: LW)

Frequency of use

All global and quality-specific balancing requirements that arose in February and March 2016 were fully met by way of MOL 1 and MOL 2 balancing actions. As a result we did not have to make use of any of the additional LTO contracts.

8. Review of approved interim measures (in accordance with Article 46 of the BAL Code)

NCG believes that it is necessary to retain the approved interim measure permitting continued use of the existing balancing platforms as the trading options provided on the exchange are not always sufficient to fully meet balancing requirements. This is the case whenever balancing actions are required at a specific system point or when the exchange is unavailable. Being able to meet point-specific balancing requirements in particular, however, is essential to ensure that system stability can be maintained. Yet the products required in such situations are not available on the exchange, which means that the exchange cannot be used as a procurement tool in these cases.

Point-specific balancing requirements could theoretically also be met through LTOs. But if no platform was available, then the MAMs would have to resort to very conservative estimates of the maximum capacity required to ensure that their market areas can be balanced at all times. The MAMs would hence base their forecast on historical demand peaks registered locally in past periods.

In addition, a safety margin might have to be factored in, as neither system integrity nor supply security may be endangered at any point in time. The MAMs would therefore have to contract high delivery rates or capacities that would only be needed in rarely occurring extreme circumstances but that would be essential to ensure the functioning of the system in critical situations.

LTOs are typically priced based on a combination of capacity charges and commodity charges. Due to the fixed nature of the capacity component, which must always be paid, LTO contracts would disproportionately increase costs.

Under the above scenario it is likely that due to the associated capacity charges alone the required LTO contracts needed to meet zone- and especially point-specific balancing requirements would result in permanently high costs that would have to be recovered under the balancing neutrality arrangements. The MAMs could avoid this by continuing to use their balancing platforms to procure gas on a short-term basis.

The existing platforms also represent a fall-back solution in cases where the exchange is unavailable for technical reasons, e.g. scheduled maintenance, but also unplanned downtimes. If they could not resort to their own balancing platforms, the MAMs would have to procure additional LTO contracts to also address these contingencies. The frequency of planned and unplanned PEGAS downtimes is shown in Table 21. In the market area NetConnect Germany alone the exchange was unavailable on a total of 24 gas days. The downtimes on these gas days lasted between 30 minutes and 12 hours.

Date	From	Until	Duration (hours:minutes)	Planned	Unplanned
3 Oct 2015	16:00	16:30	00:30	X	
13 Oct 2015	21:50	00:15	02:25	X	
19 Oct 2015	18:30	20:00	01:30		X
7 Nov 2015	21:45	02:00	04:15	X	
8 Nov 2015	12:16	14:05	01:49		X
15 Nov 2015	00:10	01:35	01:25		X
5 Dec 2015	16:00	16:45	00:45	X	
8 Dec 2015	21:45	00:15	02:30		X
16 Dec 2015	14:30	15:45	01:15		X
21 Dec 2015	19:30	20:30	01:00		X
28 Dec 2015	07:28	09:00	01:32		X
9 Feb 2016	19:45	00:15	04:30	X	
4 Mar 2016	19:40	00:30	03:50	X	
22 Mar 2016	19:00	00:00	05:00	X	
12 Apr 2016	19:00	22:15	03:15	X	
20 May 2016	19:40	00:15	04:35	X	
14 Jun 2016	19:40	01:00	04:58	X	
15 Jun 2016	00:37	01:00	00:23		X
29 Jun 2016	09:00	09:30	00:30	X	
23 Jul 2016	16:30	17:45	01:15	X	
9 Aug 2016	19:40	00:45	04:05	X	
20 Aug 2016	08:39	20:45	12:06		X
24 Aug 2016	06:45	08:15	01:30	X	
3 Sep 2016	15:45	16:30	00:45	X	

Table 21: Overview of days on which the exchange was unavailable

Gas supply security can only be maintained if all required balancing quantities can be procured at any time. If all balancing requirements were always to be met by way of MOL 1 and MOL 2 balancing actions, the exchange-traded products needed for this purpose would have to be offered by the exchange in a way that ensured their full availability at all times. In relation to the RoD and DA product variants currently ranking at MOL 3 this would mean that the exchanges would have to introduce the corresponding point-specific balancing products in addition to the other exchange-traded balancing products currently ranking at MOL 2. It would then also have to be ensured that these products were available at all times. This is not currently the case. So at present we do not see any alternatives to retaining the existing balancing platforms when it comes to meeting RoD and DA balancing requirements at specific system points for which we currently use the balancing products ranking at MOL 3.

As regards our point-specific balancing requirements at the IPs Zevenaar and Winterswijk in individual hours it can be noted that following introduction of corresponding MOL 2 products on the exchange and thanks to a high level of acceptance by market participants we have been able to discontinue the “Hour” product variant of our bilaterally contracted short-term balancing product ranking at MOL 3 with effect from November 2016.

9. OTHER BALANCING ACTIVITIES: SUPPLY OF EXTRATERRITORIAL NETWORKS

The German network areas downstream from the IPs Haanrade and Dinxperlo on the German-Dutch border have no physical connection to the German gas network ("extraterritorial networks") and can therefore only receive gas from the Dutch gas system. In order to comply with market liberalisation requirements, which include a requirement to facilitate supplier switching at end user level, NCG conducted a transparent tender process in 2015 in consultation with the Federal Network Agency's Ruling Chamber No. 7 and the network operators involved to invite bids for the supply of gas to these extraterritorial networks in the calendar year 2016.

Suppliers were asked to submit bids for the provision of the required gas quantities directly on the Dutch exit side of the IPs Haanrade and Dinxperlo. The supply of gas to the end users located downstream from these IPs (industrial sites and private households) was not part of the scope of the tender.

In choosing this approach NCG ensures that the networks downstream from the IPs Haanrade and Dinxperlo can be integrated into the market area NetConnect Germany, and thus enables suppliers to supply the end users affected from inside the market area NetConnect Germany. This makes it possible for the end users connected to these extraterritorial networks to freely choose their suppliers in accordance with the rules for supplier switching processes. The activities we undertake to implement these market liberalisation requirements can be characterised as "other balancing activities" falling within the scope of the GaBi Gas 2.0 ruling. The costs incurred for the gas quantities supplied under the full-supply contracts signed in the course of this tender process are therefore recovered through the balancing neutrality charges. The costs for the required transportation capacity are borne by the network operators involved.

In a transparent and non-discriminatory process carried out in July 2015, NCG published an invitation for indicative quotes for a total gas quantity of 330,000 MWh to be supplied in the delivery period from 1 January 2016 (06:00 hours) to 1 January 2017 (06:00 hours). Nine wholesale suppliers responded to this invitation and submitted indicative bids. Following an evaluation of the price information and contract documents received, three wholesale suppliers were asked to submit binding bids to NCG by mid-October 2015.

Based on a comparison of the fixed prices offered at the relevant reference date, we accepted the best-priced bid submitted, which quoted a fixed price of 18.36 €/MWh.

Outlook: From November 2016 the above gas supply model will also be applied to the network areas downstream from the IP Tegelen[11].

[11] This will be included in our System Balancing Report for GY 16/17.

10. CONCLUSIONS/SUMMARY

This year's System Balancing Report for the gas year 15/16 can be summarised by stating that we have been able to conduct our external system balancing activities at market price levels and almost entirely based on trades executed on the exchange.

More than 90% of our total balancing requirements were quality-specific balancing requirements that had to be met in the relevant high CV and/or low CV network areas. Most of the quality-specific balancing requirements that arose in the low CV network areas in the months following the introduction of WD capacity products in November 2015 were met by trading gas in our own market area. What is more, we have not needed to take any balancing actions whatsoever via the adjacent TTF market area since April 2016. However, NCG still has the option to book transportation capacity on a short-term basis whenever the quantities available in its own market area NetConnect Germany should not be sufficient to meet its balancing requirements.

Our balancing product "Flexibility", which used to be procured for the purpose of structuring gas flows at certain IPs during the gas day, was discontinued with effect from May 2016. Instead, point-specific exchange-traded contracts that require delivery of gas at the IPs Elten and Vreden in individual hours were launched in cooperation with the PEGAS exchange alongside corresponding bilateral MOL 3 and MOL 4 products which were introduced by NCG. The first LTO contracts for the "Hour" product variant ranking at MOL 4 were tendered out in May 2016 in order to ensure that we would be able to meet our hourly balancing requirements. Due to insufficient practical experiences with these balancing products we have not been able to review the potential options for reducing their use in the future. We plan on doing this as part of an evaluation to take place in the summer of 2017.

In GY 15/16 we did not use any zone-specific balancing products ranking at MOL 2. In view of this background we currently see no need to take zone-specific MOL 2 balancing products into account in the future when determining the applicable daily imbalance charges.

In the context of our MOL 4 balancing products we continued to invite bids for LTOs on a RoD basis to secure our market area against dynamic effects in certain balancing zones as well as to ensure greater supply security in accordance with the requirements set out by the BMWi in its corresponding policy paper. We expect that we will continue to need these LTO balancing products in the future in order to be able to meet the associated balancing requirements.

Following a review of the approved interim measures currently in place we have come to the conclusion that the existing balancing platform will continue to be a necessary tool to meet point-specific balancing requirements on a RoD and DA basis as the trading options presently available on the exchange are not sufficient for this purpose. Our point-specific MOL 3 balancing product for the delivery of gas in individual hours (at the IPs Zevenaar and Winterswijk), in contrast, was discontinued in November 2016 after a transition phase following the successful launch of corresponding MOL 2 products on the exchange.

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