DPM

Market and Allocation

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Version 8.0
- Final.

Version 7.9
- In the offline allocation the CDS-operator has to use a different connection point id (EAN) than the LDC for the allocation on the connection of the CDS to the network area of the LDC.
- For approval ALV NEDU.

Version 7.0
- Final.

Version 6.9
- For approval ALV NEDU.

Version 6.3

- Changes to allocation process to accommodate multiple suppliers and shippers within closed distribution networks connected to network areas, operated by LDC.

Version 6.0
- Final.

Version 5.9
- For approval ALV NEDU.

Version 5.1
- Changes as a result of the processing of LDC net loss, which will be effectively implemented as of 1 January 2019.

Version 4.9
- Changes as a result of abolishing daily allocation (V1-allocation).

Version 4.1
- Changes in the processing of LDC net loss effective 1 January 2017.

Version 4.0
- Changes as a result of incorporating the processing of LDC net loss, which will be effectively implemented as of 1 January 2015.

Version 3.099
- Changes as a result of incorporating the processing of LDC net loss, which will be effectively implemented as of 1 January 2015.

CONTENTS

1 Introduction

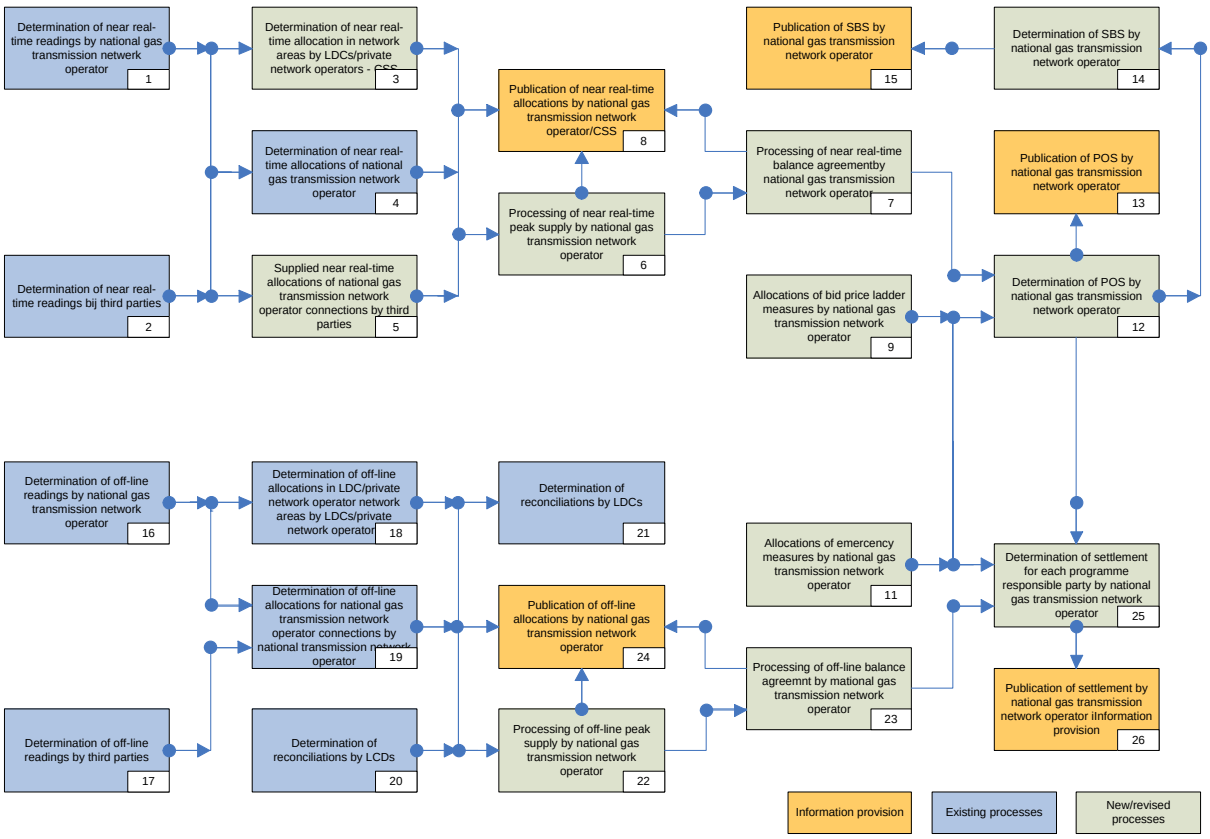
The Wholesale Gas Market Model Market Process Model (MPM) provides a global description of all the processes relating to the wholesale gas market model.

The 'Market and Allocation' detail process model further elaborates the allocation and settlement processes.

Goal and scope

The Wholesale Gas Market Model MPM serves as the basis for this DPM. The basic assumptions and definitions described in the MPM are also applicable to the DPM and will not be repeated in the DPM. However, supplementary definitions and more detailed versions of MPM basic assumptions will be included in the DPM.

The figure below shows the scope[1] of the 'Market and Allocation' DPM.



Note: Where "private network operators" are mentioned in the diagram, this includes CDS-operators.

The near real-time information enables the acknowledged programme responsible party to balance his portfolio. In addition, the near real-time information is used by acknowledged programme responsible parties for forecasting market demand. The off-line process, on the other hand, is used for accurate commodity settlement.

The process starts by collecting the near real-time metering data and conducting the near real-time allocation at a network point level. These allocations are then aggregated in near real-time to the individual portfolios of the acknowledged programme responsible parties. If applicable, the effects

[1]) For the sake of completeness, the existing processes which are unaffected by the new Wholesale Gas market model are also included in the schematic.

of the peak supply for residential end users and the balance agreement are determined at a portfolio level, i.e. not at a network point level. Based on these near real-time allocations and the allocations associated with any Within Day Balancing Action (Within Day Balancing Action commodity distribution), emergency measure calls and TTF transactions, the POS is then compiled for each acknowledged programme responsible party separately per portfolio.
For the purposes of the settlement process the off-line metering data and the off-line allocations are determined at a network point level. These off-line allocations are then aggregated to the individual portfolios of the acknowledged programme responsible parties. If applicable, the consequences of peak supply, balance agreement, Within Day Balancing Actions, initiation of emergency measures and TTF transactions are processed at a portfolio level.

2 Basic assumptions and definitions

The Wholesale Gas Market Model MPM describes the basic assumptions and definitions for implementing the new wholesale gas market model. These basic assumptions are therefore also a starting point for drawing up the DPM.

MPM assumptions relating to this DPM:

- Para. 4.6 Allocation process
- Para. 4.7 Settlement process
- Para. 4.46.11 Balance agreement on TTF

Supplementary DPM assumptions:

- The balance agreement on TTF has a term of at least one gas day.
- The exits involved in a balance agreement are damped[2].
- The current allocation method for the 'near real-time' and 'off-line' allocations as described in the Gas Allocation Code.
- The current method for distributing the planned capacity for the system connections as described in the Gas Transport Code – National Gas Transmission Network Operator
- Gas Steering Signal MPM
- Gas Steering Signal DPM
- Message specification for the purposes of the Central System Steering Signal
- The DPM will use the usual sign convention for entry flows (negative) and exit flows (positive). The equation to be used when calculating the near real-time imbalance is:

$$OB_{prog}(bp_i) = Entry_{real,prog}(bp_i) + Exit_{real,prog}(bp_i) - Entry_{plan,prog}(bp_i) - Exit_{plan,prog}(bp_i)$$

  This is as a result of the following:

  - A negative imbalance and thus also POS and SBS means that more gas has entered the network than has exited it (long).
  - A positive imbalance and thus also POS and SBS means that less gas has entered the network than has exited it (short).

- The equation used to calculate the volume difference (Vv) within a portfolio of an acknowledged programme responsible party over the settlement period (vp) uses the following formulae. The settlement period is on a daily basis.

$$Vv_{prog}(vp) = Entry_{offline,prog}(vp) + Exit_{offline,prog}(vp) - Entry_{plan,prog}(vp) - Exit_{plan,prog}(vp) - OB_{prog}(vp)$$

Supplementary DPM definitions:

National gas transmission network operator connections are used in this DPM to refer to the following categories of network points:

- Interface points (connections between neighbouring networks and the national gas transmission network)
- Connections of industrial users to the national gas transmission network

[2]) In accordance with the MPM obligatory damping only occurs with residential end user connections. The expansion of this obligation to all domestic exits that are involved in a balance agreement on TTF does not limit the practicability of this trading transaction while simplifying its administrative processing.

- Connections between gas production networks and the national gas transmission network
- Connections of gas production locations to the national gas transmission network
- Connections of gas storage facilities to the national gas transmission network
- Connections between private gas transmission networks and the national gas transmission network where the private network operator is not involved in the CSS (see para. 3.5).

DPM assumptions:

The following general assumptions apply to this DPM:

Allocations are represented by:
- a positive value if the gas is exiting the portfolio
- a negative value if the gas is entering the portfolio.

Imbalances, POS and SBS are represented by:
- a positive value if less gas enters the network than exits it (=short).
- a negative value if more gas enters the network than exits it (=long).

The following assumptions apply with reference to the settlement quantity:
- If the settlement quantity is positive, GTS sends a debit statement to the acknowledged programme responsible party.
- If the settlement quantity is negative, GTS sends a credit statement to the acknowledged programme responsible party.

The following information is displayed for the virtual points:
- TTF (deemed supplies)
    - Near real-time allocations per acknowledged programme responsible party
    - Off-line allocations per acknowledged programme responsible party per other party
- TTF (balance agreement)
    - Near real-time allocations per acknowledged programme responsible party per other party per user category
    - Off-line allocations per acknowledged programme responsible party per other party per user category
- VPI
    - Near real-time allocations per acknowledged programme responsible party
    - Off-line allocations per acknowledged programme responsible party
- VPPV
    - No near real-time allocations
    - Per entry or exit programme the total entry and exit quantity per hour

Allocations, imbalances, POS, SBS and settlement quantities are shown as follows for the purposes of displaying in the portal and local downloading from the portal:
- in the units:
    - kWh (default)
    - MJ
    - GJ
    - m^3(n;35.17)
- rounded to the nearest whole number for the screen
- to an accuracy of 6 decimal points for downloads from the portal
- in tandem with a time given in
    - CET (default)
    - LET

and

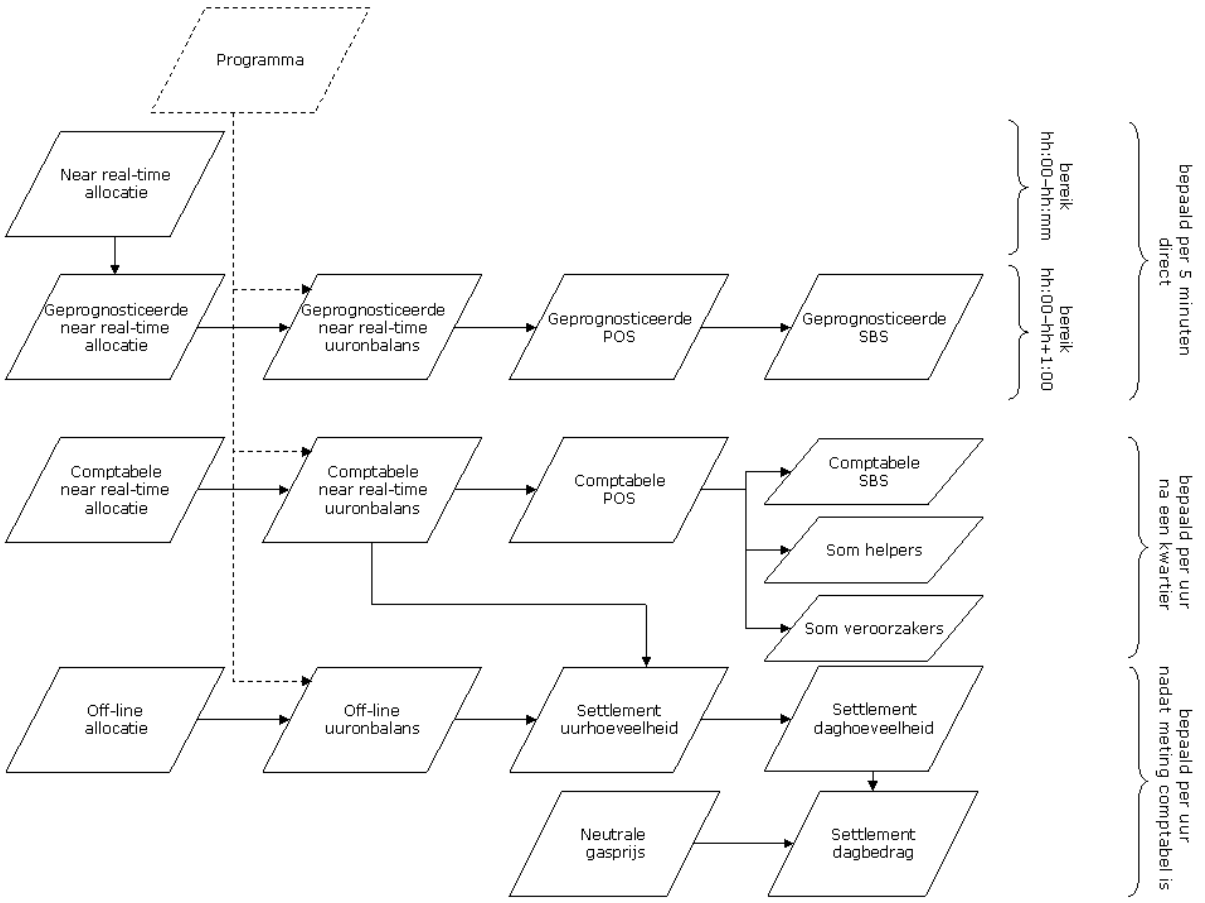
New messages for allocations, imbalances, POS, SBS and settlement quantities are shown as follows for the purposes of XML message exchange:
- in the unit kWh
- to an accuracy of 6 decimal places
- in tandem with a time given in CET

Variables used in DPM

The table below provides an overview of the variables described in this DPM.

	Near real-time	Prognosis near real-time	Accountable near real-time	Off-line	Settlement
Allocations	√	√	√	√	
Imbalances		√	√	√	
POS		√	√		
Sum helpers			√		
Sum causers			√		
SBS		√	√		
Settlement hourly amount					√
Settlement daily amount					√
Settlement sum					√

The schematic below shows the connections between the data.



The data (Programme) shown in this schematic with a broken line is outside the scope of this DPM, but is shown for illustrative purposes because of the significance for this DPM.

The different variables are described for each field in the paragraphs below.

Definition of allocation variants in DPM

Variable	**Near real-time allocation**
Input used	Contract info, confirmations, externally supplied near real-time allocations and readings
Purpose	Input for determining the forecast near real-time allocation
Reference	The value refers to the total allocation determined from the start of the whole hour to the time of determination within that particular hour.
Determination frequency	Every five minutes
Retention time	36 hours
Determination method	See near real-time allocation process description

Variable	**Prognosis near real-time allocation**
Input used	Near real-time allocation
Purpose	Input for determining the forecast near real-time imbalance
Reference	The value refers to the total allocation determined from the start of the whole hour to the end of that particular hour.
Determination frequency	Every five minutes
Retention time	36 hours
Determination method	Extrapolation from near real-time allocation

Variable	**Accountable near real-time allocation**
Input used	Contracts, confirmations and readings
Purpose	Input for determining the accountable near real-time imbalance
Reference	The value refers to the total allocation determined from the start of the whole hour to the end of that particular hour.
Determination frequency	Quarter past every hour
Retention time	7 years
Determination method	See near real-time allocation process description

Variable	**Off-line allocation**
Input used	Contracts, confirmations and readings
Purpose	Input for determining the off-line imbalance
Reference	The value refers to the total allocation determined from the start of the whole hour to the end of that particular hour.
Determination frequency	As soon as reading is definitive
Retention time	7 years
Determination method	See off-line allocation process description

Definition of imbalance variants in DPM

Variable	**Prognosis near real-time imbalance**
Input used	Forecast near real-time allocation and programmes
Purpose	Input for determining the forecast POS
Reference	The value refers to the imbalance determined from the start of the whole hour to the end of that particular hour.
Determination frequency	Every five minutes
Retention time	36 hours
Determination method	Is the sum of the forecast near real-time allocations minus the approved/specified programmes within a portfolio

Variable	**Accountable near real-time imbalance**
Input used	Accountable near real-time allocation and programmes
Purpose	Input for determining the accountable POS and energy difference
Reference	The value refers to the imbalance determined for a particular hour
Determination frequency	Quarter past every hour
Retention time	7 years
Determination method	Is the sum of the accountable near real-time allocations minus the programmes within a portfolio

Variable	**Off-line imbalance**
Input used	Off-line allocation and programmes
Purpose	Input for determining the energy difference
Reference	The value refers to the imbalance determined for a particular hour
Determination frequency	As soon as off-line allocations are accountable
Retention time	7 years
Determination method	Is the sum of the off-line allocations minus the programmes within a portfolio

Definition of PSO variants in DPM

Variable	**Prognosis POS**
Input used	Forecast near real-time imbalance and the POS of the previous hour
Purpose	An acknowledged programme responsible party manages any imbalance on the basis of this variable.
Reference	The value refers to the total portfolio imbalance from the start of the introduction of the new balancing regime to the end of the hour in which the value is determined.
Determination frequency	Every five minutes
Retention time	36 hours
Determination method	Is the sum of the forecast near real-time imbalance of the current hour and the POS of the previous hour.

Variable	**Accountable POS**
Input used	Accountable near real-time imbalance and the accountable POS of the previous hour
Purpose	Is input for settlement of Within Day Balancing Actions and gives the acknowledged programme responsible party information on the imbalance position, allowing any imbalance position to be adjusted
Reference	The value refers to the total portfolio imbalance from the start of the introduction of the new balancing regime to the end of the hour in which the value is determined.
Determination frequency	Quarter past every hour
Retention time	7 years
Determination method	Is the sum of the accountable near real-time imbalance of the current hour and the accountable POS of the previous hour.

Definition of SBS variants in DPM

Variable	**Prognosis SBS**
Input used	Forecast POS
Purpose	Based on this variable the network operator determines whether to invoke a Within Day Balancing Action. Acknowledged programme responsible parties can, of course, use this variable to determine whether the network operator is going to invoke a Within Day Balancing Action.
Reference	The value refers to the total system balance from the start of the introduction of the new balancing regime.
Determination frequency	Every five minutes
Retention time	7 years
Determination method	Is the sum of forecast POSes.

Variable	**Accountable SBS**
Input used	Accountable POS
Purpose	The historic trend of the SBS can be determined on the basis of this variable.
Reference	The value refers to the total system balance from the start of the introduction of the new balancing regime.
Determination frequency	Every hour
Retention time	7 years
Determination method	Is the sum of the accountable POS values.

Variable	**Sum helpers**

Input used	Accountable POS
Purpose	No formal purpose.
Reference	The value refers to the total imbalance from the start of the introduction of the new balancing regime.
Determination frequency	Quarter past every hour
Retention time	7 years
Determination method	Is the sum of the accountable POSs whose sign is opposite to that of the accountable SBS.

Variable	**Sum causers**
Input used	Accountable POS
Purpose	Used as input for pro rata allocation of Within Day Balancing Action commodity
Reference	The value refers to the total imbalance from the start of the introduction of the new balancing regime.
Determination frequency	Quarter past every hour
Retention time	7 years
Determination method	Is the sum of the accountable POSs whose sign is the same as that of the accountable SBS.

Definition of settlement variants in DPM

Variable	**Settlement hourly quantity**
Input used	Accountable near real-time hourly imbalance and off-line hourly imbalance
Purpose	The settlement daily quantity is determined on the basis of this variable.
Reference	The value refers to one hour
Determination frequency	As soon as off-line allocations are accountable
Retention time	7 years
Determination method	Is the difference between the off-line hourly imbalance and the near real-time hourly imbalance.

Variable	**Settlement daily quantity**
Input used	Settlement hourly quantity
Purpose	The settlement daily quantity is determined on the basis of this variable. The settlement daily quantity is not to be confused with the end-of-day settlement, which settles POS positions at the end of the gas day
Reference	The value refers to one gas day
Determination frequency	As soon as off-line allocations are accountable
Retention time	7 years
Determination method	Is the sum of the settlement hourly quantities for one gas day.

Variable	**Neutral gas price**
Input used	To be determined
Purpose	Input for settlement amount
Reference	The value refers to one period to be defined in advance.
Determination frequency	To be determined
Retention time	7 years
Determination method	To be determined

Variable	**Settlement daily amount**

Input used	Settlement daily quantity and neutral gas price
Purpose	Invoicing of settlement
Reference	The value refers to one gas day.
Determination frequency	As soon as off-line allocations are accountable
Retention time	7 years
Determination method	Energy difference multiplied by the neutral gas price

DPM symbols:

Entry	Entry quantity in an entry or exit programme
Exit	Exit quantity in an entry or exit programme
OB	Imbalance for an entry or exit programme
Vv	Volume distribution for an entry or exit programme

Sub- and superscripts

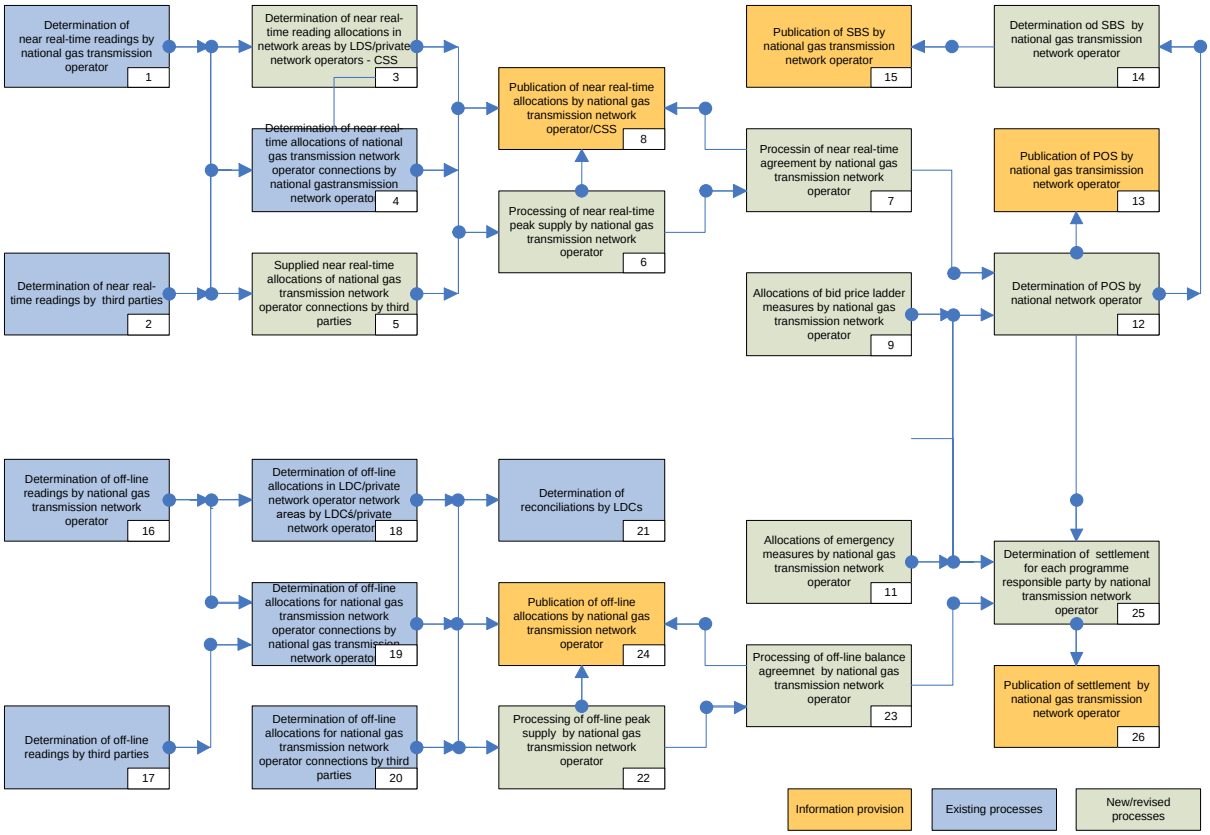
Prog	Programme in the sense of an entry or exit programme
Plan	Expectation for entry or exit programme submitted a day ahead
Real	Near real-time implementation for entry or exit programme
Offline	Off-line implementation for entry and exit programme

DPM abbreviations

CSS Central System Steering Signal
BVP Balancing Virtual Point (distribution of Within Day Balancing Action volume to causers)
NVP Emergency Measure Volume Point
VPI Virtual Point Infeeds (for infeeds into the network areas)
CDS Closed distribution system, as defined in the Dutch Gas act, connected to a net area and for which the owner uses the allocation messaging process to facilitate free supplier choice for connected parties

3 Overview of sub-processes

An overview of the sub-processes and the relationships between the sub-processes is given below. The figure is not intended to specify a chronological order but to indicate the causal relationships between the sub-processes and the use of data derived from a different sub-process.



Note: Where "private network operators" are mentioned in the diagram, this includes CDS-operators.

The interdependences between the sub-processes and the requirements relating to the elapsed time for the process are:

- The determination of the entry or exit energy quantity at a network point takes place at a frequency of once every 5 minutes. This information relates to the 5-minute periods.
- The near real-time allocations are carried out by the national gas transmission network operator on the basis of the information in the connection register of the national gas transmission network operator, the nominations submitted by the acknowledged programme responsible party, the near real-time metering data and the quantity from the balance agreements at a frequency of once every 5 minutes. These allocations relate to the 5-minute periods.
- The national gas transmission network operator provides authorised parties with the information determined at a frequency of once every 5 minutes within 5 minutes of the time to which this information refers.
- In the case of network points where the near real-time allocations are supplied from external parties or systems there is a minimum frequency of once per hour. These near real-time allocations have to be made available to the national gas transmission network operator at the latest 13 minutes after the time to which this information refers.
- The national gas transmission network operator provides the acknowledged programme responsible party with the supplied near real-time allocations within 15 minutes[3] of the time to which this information refers.

[3]) The specified time period applies on condition that the information is supplied on time from the underlying systems. In exceptional situations it is possible that the information is made available a maximum of 15 minutes later.

- The national gas transmission network operator determines the finish hour forecast of the Portfolio Imbalance Signal (POS) for each acknowledged programme responsible party at a frequency of once every 5 minutes. The POS refers to hour changes (whole hours).
- The national gas transmission network operator determines the finish hour forecast of the System Balance Signal (SBS) at a frequency of once every 5 minutes.
- The POS is definitive and accountable as soon as all near real-time allocations are available for the relevant portfolio. The accountable POSs at the start of the hour form the basis for the allocations of the Within Day Balancing Actions and emergency measure calls in the relevant hour. The accountable POS is determined once per hour by the national gas transmission network operator.

3.1 Determination of near real-time readings by national gas transmission network operator

The 'Determination of near real-time readings by national gas transmission network operator' sub-process refers to the network points for which the national gas transmission network operator is responsible for the metering system. For these network points the national gas transmission network operator meters at a frequency of once every 5 minutes for the 5-minute periods the quantity of energy that has flowed since the start of that hour via that network point.

In addition, the expected hourly quantity for that relevant network point is forecast by means of linear extrapolation on the basis of the most recent 5-minute period.

If no reading is available, the last correctly received hourly reading is used as a substitute reading for the relevant hour.

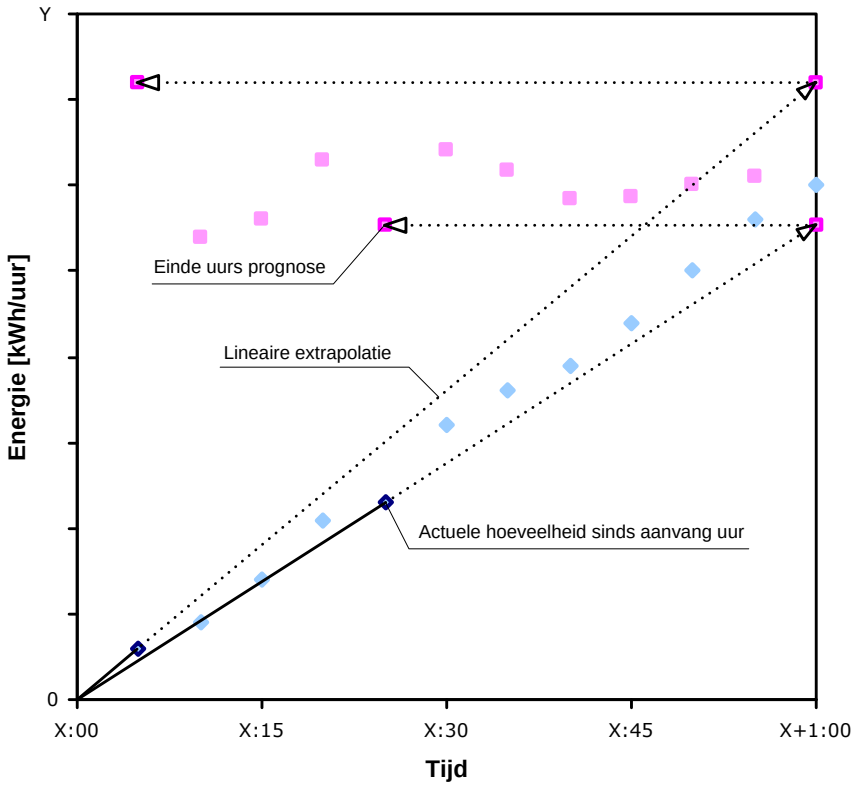
3.2 Determination of near real-time readings by third parties

The 'Determination of near real-time readings by third parties' sub-process refers to the network points for which metering is carried out by a party other than the national gas transmission network operator. For these network points the national gas transmission network operator downloads via a VPN connection the quantity of energy that has flowed since the start of that hour via that network point. This is carried out at a frequency of once every 5 minutes for the 5-minute periods.

In addition, the expected hourly quantity for that relevant network point is forecast by means of linear extrapolation on the basis of the most recent 5-minute period. This process is illustrated schematically in the figure below. By way of example, the extrapolated reading for the periods after 5 minutes and after 25 minutes are shown.

The national gas transmission network operator carries out a plausibility check[4] on the quantity of energy supplied. If the quantity of energy supplied is rejected by the national gas transmission network operator on the basis of this plausibility check, a substitute reading is used.

[4]) For this plausibility check it is important to consider clearly tangible variables, such as the maximum (design) capacity of the relevant connection.



Please note: figure is in Dutch

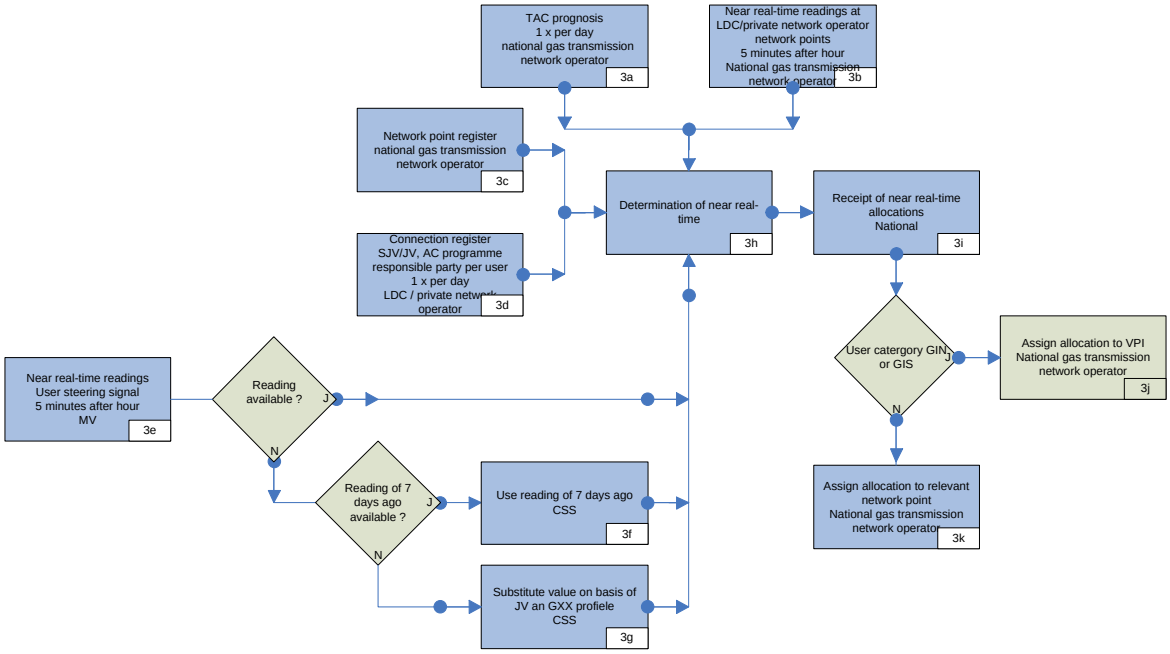
If no reading is available, the last correctly received hourly reading is used as a substitute reading for the relevant hour.

The protocol for transmitting the metering data between the party carrying out the metering and the national gas transmission network operator is specified in a Gasunie Technical Standard.

3.3 Determination of near real-time readings in network areas

A detailed explanation of the 'Determination of near real-time allocations in network areas by LDCs/private network operators - CSS' is shown in the flowchart below.
A complete description of the functionality of the Central System Steering Signal is included in the MPM and DPM for this system. The CSS handles the near real-time allocations of the acknowledged programme responsible parties at the network points which form a connection between the national gas transmission network and an LDC.

For the purposes of carrying out the peak supply and the balance agreement the allocation distribution takes place for each network area per acknowledged programme responsible party and user category.
The allocations supplied by the CSS for local gas producers in the network areas are assigned to the VPI aggregated per acknowledged programme responsible party and are not assigned to the relevant network area where the gas producer operates.



Note: Where "private network operators" are mentioned in the diagram, this includes CDS-operators.

The allocations supplied by the CSS for the network areas are also used by the national gas transmission network operator as an allocation distribution for the intermediate metering data on a 5-minute basis. If applicable, account is taken of network connections with a near real-time readout. For such a network area the network connection quantity on an hourly basis is determined as the difference between the reading supplied to the CSS by the national gas transmission network operator and the sum of the allocations determined by the CSS. In formula form for the time 20 minutes after the hour has elapsed:

$$All_{PV,AC}(20\,\text{min}) = \frac{All_{PV,AC}(CSS)}{\sum All_{PV,AC}(CSS)} \cdot \left(E_{Netarea}(20\,\text{min}) + \left(\left(\sum All_{PV,AC}(CSS) - E_{Netarea}(CSS) \right) \bullet \frac{20\,\text{min}}{60\,\text{min}} \right) \right)$$

The protocol for transmitting information between the national gas transmission network operator, the local distribution companies and the metering responsible parties, on the one hand, and the CSS, on the other, is specified in the 'Central System Steering Signal Message Specification'.

The CSS also supplies allocations for the gas producers in the network areas. Two user categories are defined for gas producers in the network areas:

- A GIS user category for gas producers with an annual ~~consumption~~ production of more than 1 million m^3 (n). This category of gas producers has to have near real-time hourly metering whose metering data has to be supplied on an hourly basis to the Central System Steering Signal.
- A GIN user category for gas producers with an annual consumption of less than 1 million m^3 (n)[5]. This category of gas producers has to have hourly metering. The allocation in the Central System Steering Signal is carried out on the basis of a profile of the expected annual production.
- In accordance with the sign conventions, the allocations supplied from the CSS (near real-time) and the LDCs (off-line) are negative for these two categories of gas producer.

The sum of all allocations (consumers and producers) in a network area has to be the same as the reading supplied by the national gas transmission network operator including any network connections. When the near real-time allocations are supplied by the CSS there is a division by the national gas transmission network operator, with the allocations for the gas producers being

[5]) A gas producer with an annual consumption of less than 1 million m^3 (n) can supply near real-time hourly metering data on request. In such a situation the user category GIS is assigned to the gas producer.

assigned to the virtual point infeeds located on the entry side of the entry programme. Assignment to a VPI is carried out per acknowledged programme responsible party per user category[6].

The CSS has been set up to be able to carry out the near real-time allocations for private gas transmission networks. Near real-time allocation mechanisms have been defined in the CSS for the situations specified below:

- Only users with hourly metering are connected to the private gas transmission network
- One user without a metering system is connected to the private gas transmission network. The allocation for this user is the difference between the transferred quantity at the network point between the national gas transmission network operator and the private network operator and the users with an hourly metering system connected to the private gas transmission network.

It is not mandatory for private network operators connected to the national gas transmission network to take part in the CSS. If operators do not take part in the CSS the near real-time allocations will be carried out by the national gas transmission network operator as described in para 3.4.

Entry and exit flows to and from a CDS have to be part of the CSS. The CDS-operator provides CSS with information on programme responsible parties for connections to the CDS, CSS will take account of this information. For GGV- and GIS-connections to a CDS the hourly meter readings shall also be provided to CSS by the metering responsible party.

The CSS system will also take care of the near real time allocation of net losses. The CSS system will receive from each LDC the hourly calculated net losses per network area; these will be allocated to the appointed net loss connection (EAN) in the local net.

3.4 Determination of near real-time allocations of national gas transmission network operator connections by national gas transmission network operator

In the 'Determination of near real-time allocations of national gas transmission network operator connections by national gas transmission network operator' sub-process the near real-time allocations are determined by the national gas transmission network operator for the national gas transmission network operator connections for which the near real-time allocations are not supplied externally (see paras. 3.3 and 3.5)

Use is made for this allocation process of the connection register of the national gas transmission network operator, the nominations submitted by the acknowledged programme responsible parties and the near real-time metering data.

With regard to the connections of industrial users to the national gas transmission network, gas production locations to the national gas transmission network and the connections between private gas transmission networks and the national gas transmission network several acknowledged programme responsible parties can be active, though only the 'balancing' role is permitted. For the other categories of network points, too, several acknowledged programme responsible parties can be active, with the acknowledged programme responsible parties able to take on the roles of 'proportional' and 'balancing'.

The national gas transmission network operator carries out the allocations for the network points specified in this paragraph at a frequency of once every 5 minutes for the 5-minute periods on the basis of the quantity of energy that has flowed since the start of that hour via that network point.

3.5 Supply of near real-time allocations of national gas transmission network operator connections by third parties

In the 'Determination of near real-time allocations of NNO and national gas transmission network operator connections by third parties' sub-process the near real-time allocations for the national

[6]) There is therefore no information available on the network area and the supplier at the VPI.

gas transmission network operator connections are determined by a party other than the national gas transmission network operator.
Before starting to supply near real-time allocations for a network point, all the parties involved including the national gas transmission network operator must have agreed on the method. The algorithm used for the allocation process has to be approved by all the parties involved. A further requirement is that the reading and the sum of the allocations for the relevant network points for each hour must agree exactly with each other.

Supply of near real-time readings by national gas transmission network operator

If the reading for the network point for which the party is supplying the near real-time allocations is provided by the national gas transmission network operator, the national gas transmission network operator ensures that the quantity of energy for the relevant network point is made available at a frequency of at least once per hour 5 minutes after the end of the relevant hour period.

Supply of near real-time reading by a third party

The process for the supply of the near real-time reading by a third party is described in para. 3.2. The national gas transmission network operator carries out a plausibility check[7] on the quantity of energy supplied (sum of the allocations supplied). If the quantity of energy supplied on the basis of this plausibility check is rejected by the national gas transmission network operator a substitute reading is used for the quantity of energy, and the national gas transmission network operator carries out the allocation process himself on the basis of the method described in chap. 3.4.

The party who carries out the near real-time allocation process must forward the allocations to the national gas transmission network operator at the latest 13 minutes after the hour to which the data refers.

The protocol for transmitting information between the national gas transmission network operator and the party carrying out the near real-time allocation process is specified in the 'Central System Steering Signal Message Specification'.

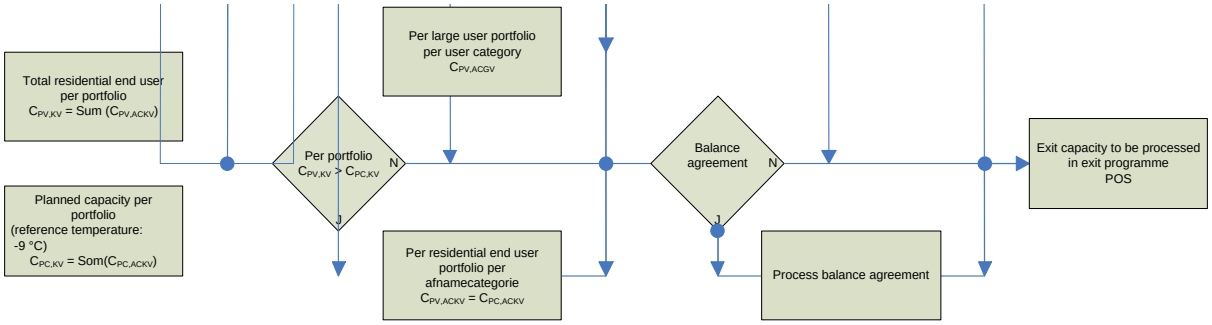
If the national gas transmission network operator does not receive the near real-time allocations punctually, he carries out the allocation process himself on the basis of the method described in chap. 3.4.

3.6 Processing of near real-time peak supply by national gas transmission network operator

A detailed explanation of the 'Processing of near real-time peak supply by national gas transmission network operator' is shown in the flowchart below. The peak supply is based on the planned capacity (-9°C) for the residential end user part for the network points which form a connection between the national gas transmission network and a local distribution network. The method employed is that used for determining the exit capacity for the exit points which form the connection between the national gas transmission network and the local distribution network as described in the Gas Transport Code - National Gas Transmission Network Operator, with -9°C being used as the reference temperature for all months. The residential end user part of the planned capacity (-9°C) contracted by the acknowledged programme responsible party forms the basis for determining the near real-time peak supply. The assignment of the peak supply to the individual acknowledged programme responsible party is carried out at a portfolio level[8].

[7]) For this plausibility check it is important to consider clearly tangible variables, such as the maximum (design) capacity of the relevant connection.

[8]) Processing of the peak supply in the near real-time allocations will therefore not take place at a network point level.



Peak supply occurs in the near real-time allocation process when the sum of all the residential end user allocations per portfolio of an acknowledged programme responsible party is greater than the planned capacity per portfolio of an acknowledged programme responsible party for residential end users at an effective mean daily temperature of -9°C. The near real-time allocations as supplied by the CSS are used as the basis for the residential end user allocations.

Processing of the peak supply in the portfolio imbalance signal of the acknowledged programme responsible parties by the national gas transmission network operator takes place after the near real-time allocations have been supplied by the CSS (see chap. 3.3).

The allocations supplied by the CSS for the network areas are also used by the national gas transmission network operator as an allocation distribution for the intermediate metering data on a 5-minute basis. The procedure described above for determining the peak supply is also applied integrally to these intermediate 5-minute readings and is used when determining the expected POS at the end of the hour and the provisional POS at the start of the hour for the period (15 minutes after the end of the hour has elapsed) when the allocations for the network areas have not yet been supplied by the CSS.

Details on the peak supply process can be read in the DPM Peak Supply.

3.7 Processing of near real-time allocations of balance agreement by national gas transmission network operator

The 'Processing of near real-time allocations of balance agreement by national gas transmission network operator' sub-process deals with the near real-time processing of the transactions in connection with a balance agreement. The transfer of the gas from the balance-supplying party to the balance-receiving acknowledged programme responsible party takes place on the TTF[9].

Per user category a maximum of one balance agreement can be specified for each unique combination of a portfolio of a balance-supplying acknowledged programme responsible party and a portfolio of a balance-receiving acknowledged programme responsible party.

In addition to a complete balance agreement per user category[10] between the portfolio of one balance-receiving acknowledged programme responsible party and the portfolio of one balance-supplying acknowledged programme responsible party, the following variants[11] are possible between the portfolio of one balance-receiving acknowledged programme responsible party and the portfolios of one or more balance-supplying acknowledged programme responsible parties.

- Percentage supply; one or more balance-supplying acknowledged programme responsible parties supply a fixed percentage. If the total percentage is lower than 100%, the balance-receiving acknowledged programme responsible party is himself responsible for the remaining percentage. The percentage supply has to be specified separately for each user category.

[9]) Specific TTF point set up to handle balance agreements, located on the exit side of the exit programme

[10]) In order to achieve a complete transfer of the total portfolio of a balance-receiving acknowledged programme responsible party each user category must be specified separately in a balance agreement.

[11]) The national gas transmission network operator must be in a position to carry out the allocation process clearly on the basis of the combination proposed.

- An absolute maximum can be entered in the (percentage) supply. This maximum has to be specified separately for each user category.
- An absolute minimum can be entered in the supply[12]. This minimum has to be specified separately for each user category.
- Own use (the balance-receiving acknowledged programme responsible party uses a defined quantity of gas from his own portfolio which he enters in the agreement).
  In the case of own use the quantity of gas entered in the balance agreement is deemed[13].

The balance-receiving acknowledged programme responsible party is responsible for ensuring that the quantity of gas transferred in a balance agreement does not exceed the quantity in the relevant user category in his portfolio[14].
The national gas transmission network operator carries out the following checks, if applicable, on the message submitted in order to verify the following, among other aspects:

- The sum of the percentages of the portfolios of all balance-supplying acknowledged programme responsible parties must be less than or equal to 100%.
- There must be no 'overlap' in the event of an 'accumulated' supply, i.e. correct use of the minimum and maximum variants.
- A portfolio of a balance-supplying acknowledged programme responsible party may only occur once in a balance agreement (per user category).

By using one or more of the above variants, it is possible that part of the consumer market of the balance-receiving acknowledged programme responsible party may not be covered by the balance agreement. The balance-receiving acknowledged programme responsible party has to submit an exit programme for that part of his portfolio that is not covered by the balance agreement[15].

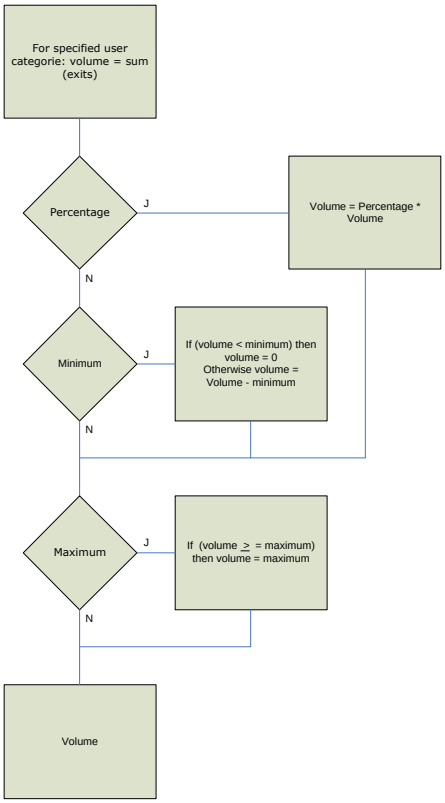
[12]) The minimum variant therefore cannot be used in combination with a percentage supply.

[13]) In the appendix the difference is given between using the 'own-use' and 'minimum' options for the balance-supplying acknowledged programme responsible party and the balance-receiving acknowledged programme responsible party.

[14]) If more than 100% of the sales in the portfolio of a balance-receiving party is transferred, this results in a portfolio imbalance being created.

[15]) A balance-receiving acknowledged programme responsible party does not have to submit an exit programme in the event of the complete transfer of the total portfolio. This means that the relevant acknowledged programme responsible party has to specify a balance agreement for all user categories.

The processing of the different possible variants in a balance agreement is shown in the figure below.



The national gas transmission network operator shows the balance-supplying acknowledged programme responsible party the near real-time information aggregated by user category for the exit portfolio of the balance-receiving acknowledged programme responsible party that is covered by the contracted balance agreement at the TTF point set up for dealing with the balance agreement. This information is updated by the national gas transmission network operator at a frequency of once every 5 minutes for the 5-minute periods. In addition, the expected hourly quantity is forecast by means of linear extrapolation of the most recent 5-minute period.

The national gas transmission network operator processes the near real-time information for the exit portfolio of the balance-receiving acknowledged programme responsible party that is covered by the contracted balance agreement as a virtual exit in the exit portfolio of the balance-supplying acknowledged programme responsible party.

3.8 Publication of near real-time allocations by national gas transmission network operator/CSS

The 'Publication of near real-time allocations by national gas transmission network operator/CSS' sub-process describes how the near real-time allocations are made available to the appropriately authorised parties.

The national gas transmission network operator has two different channels for publishing the information:

- An internet web page (GasPort)
  The information can be opened by the appropriately authorised market parties (personally assigned certificate[16]) with the aid of an internet browser provided with a valid OTIS certificate.
- XML download facility (B2B service)
  The required information is called up by appropriately authorised acknowledged market

[16]) The personally assigned certificate ensures that the relevant market party only has access to the information to which he is authorised.

parties (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator[17].

The information made available by the national gas transmission network operator is:

- For the individual 5-minute periods for each acknowledged programme responsible party the quantity of energy[18] that has flowed since the start of that hour via that relevant network point. The national gas transmission network operator makes the information available within 5 minutes of the elapsing of the 5-minute period.
- On the basis of the individual 5-minute periods for each acknowledged programme responsible party a forecast of the quantity of energy at the end of the relevant hour. This forecast is specified on the basis of a linear extrapolation of the latest available 5-minute period. This information is not available via the XML download facility[19].
- For the network areas the total gas throughput per network area is also made available to the acknowledged programme responsible parties who have a LB licence. A forecast of the gas throughput at the end of the relevant hour is also made for these network points on the basis of a linear extrapolation of the information from the last available 5-minute period.

Additional information can be found at the website of the national gas transmission network operator (http://www.gasunietransportservices.nl/en/products-services/gasport-and-b2b).

3.9 Allocation of Within Day Balancing Action measures by national gas transmission network operator

The 'Allocation of Within Day Balancing Action measures by national gas transmission network operator' sub-process describes the allocation process for Within Day Balancing Action measures called off by the national gas transmission network operator. A description of the 'Within day balancing action' process can be found in the 'Within day balancing action' DPM.

A specific virtual network point has been set up to deal with the transactions associated with Within Day Balancing Actions by the national gas transmission network operator: the Balancing Virtual Point (BVP).

The national gas transmission network operator informs the acknowledged programme responsible parties of the application of the Within day balancing action measures by means of confirmation messages. These sub-processes are described in the 'Within day balancing action' DPM. These confirmation messages are processed in the portfolio of the relevant acknowledged programme responsible party. The entry or exit gas volume as a result of the Within day balancing action measure calls is processed in the portfolio imbalance signals of the causing programme responsible party at the time when this Within day balancing action gas is actually or is supposed to be supplied or drawn off. The distribution is carried out on the basis of the 'accountable' portfolio imbalance signals at the start of the hour when the Within day balancing action was invoked.

3.11 Allocation of emergency measures by national gas transmission network operator

[17]) The exchange of the existing messages and new messages in the context of the new market model will only take place in accordance with the newly specified message definition.

[18]) In those situations where the current allocations are not supplied on a 5-minute basis, the most recent allocation distribution for the relevant network point is used as an estimate of the allocation distribution to the relevant 5-minute period.

[19]) The XML download facility is intended for (automated) exchange between the ICT systems of the national gas transmission network operator and the acknowledged programme responsible party. The choice about not offering the forecast values is based on restricting the data stream, on the one hand, and on the fact that acknowledged programme responsible parties have stated, on the other hand, that they have better forecasting algorithms of their own.

The 'Allocation of emergency measures by national gas transmission network operator' sub-process describes the allocation process for emergency measure calls made by the national gas transmission network operator. A description of the 'Emergency measure call' process can be found in the 'Within day balancing action' DPM.

A specific virtual network point has been set up to deal with the transactions associated with emergency measure calls by the national gas transmission network operator: the Emergency Measure Volume Point (NVP).

The national gas transmission network operator informs the acknowledged programme responsible parties of the application of the emergency measures by means of confirmation messages. These sub-processes are described in the 'Within day balancing action' DPM. These confirmation messages are processed in the portfolio of the relevant acknowledged programme responsible party. The entry or exit gas volume as a result of the emergency measure calls made is processed in the portfolio imbalance signals of the causing programme responsible party at the time when this emergency measure gas is actually or is supposed to be supplied or drawn off. The distribution is carried out on the basis of the 'accountable' portfolio imbalance signals at the start of the hour when the emergency measure call was made.

3.12 Determination of POS by national gas transmission network operator

The 'Determination of POS by national gas transmission network operator' sub-process describes how the national gas transmission network operator determines the portfolio imbalance signal separately for each acknowledged programme responsible party.

The POS for an acknowledged programme responsible party for a particular hour is calculated on the basis of the POS for this acknowledged programme responsible party in the preceding hour and

- The contribution of the imbalance in the relevant hour that is given by the following equation:

$$OB_{prog}(bp_i) = Entry_{real,prog}(bp_i) + Exit_{real,prog}(bp_i) - Entry_{plan,prog}(bp_i) - Exit_{plan,prog}(bp_i)$$

- The confirmation messages in the course of the allocation of Within day balancing action measures. This allocation takes place in the hour when the Within day balancing action measures (are supposed to) become active.
- The confirmation messages in the course of the allocation of emergency measures. This allocation takes place in the hour when the emergency measures (are supposed to) become active.
- The 'regular' confirmation messages in the course of the trade and transport allocations.

The national gas transmission network operator distinguishes between two variants depending on the time to which the POS refers and the status of the near real-time allocations on which the POS calculation is based:

- Accountable POS
  The accountable POS refers to an hourly period in the past. When determining the accountable POS for the network points for which externally supplied near real-time allocations are expected, the national gas transmission network operator makes use of these externally supplied near real-time allocations. The definitive POS is used for settlement of the Within Day Balancing Action, and/or emergency measure gas. The accountable POS is determined at a frequency of once per hour by the national gas transmission network operator and is available 15 - 20 minutes[20] after the hour to which the POS refers.
- Forecast POS
  The forecast POS refers to the next future hourly period[21]. When determining the forecast

[20]) The specified period is applicable under normal circumstances. In exceptional situations the accountable POS may only become available later.

[21]) The last forecast POS for an hourly period is shown 5 minutes after the end of the relevant hourly period by the national gas transmission network operator and is based on the available information for the relevant

POS the national gas transmission network operator makes use of the forecasts for the allocations at the end of the relevant hour (please see para. 3.8 for details of determining these forecasts at network points). The forecast POS is updated at a frequency of once every 5 minutes by the national gas transmission network operator.

As soon as the national gas transmission network operator has made an accountable POS and a forecast SBS available, Within Day Balancing Action and emergency measure (forecast SBS) calls are made, if applicable, and the settlement of Within Day Balancing Action and emergency measures take place (accountable POS).

In the event of a failure of the accountable POS and long-term failure of the forecast SBS as described in the MPM the Within Day Balancing Action is not invoked. In such a situation the POS values of all portfolios of all acknowledged programme responsible parties are frozen until such time as the hourly base imbalance is available again. During the period of data non-availability the acknowledged programme responsible party must attempt to follow his approved programme 'as well as possible', taking account of the divergences from his programme of which he is aware at the start of the data non-availability.
The nature of the failure of the ICT systems of the national gas transmission network operator which causes the non-availability of the POS and/or SBS determines the way in which the means used by the national gas transmission network operator for balancing the national gas transmission network during the period of data non-availability are 'settled'.

3.13 Publication of POS by national gas transmission network operator

The 'Publication of POS by national gas transmission network operator' sub-process describes how the national gas transmission network operator makes the portfolio imbalance signal available to authorised acknowledged programme responsible parties.

The national gas transmission network operator has two different channels for publishing the information:

- An internet web page
  The information can be opened by the appropriately authorised acknowledged programme responsible parties (personally assigned certificate) with the aid of an internet browser.
- XML download facility
  The required information is called up by the appropriately authorised acknowledged programme responsible party (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator.

3.14 Determination of SBS by national gas transmission network operator

The 'Determination of SBS by national gas transmission network operator' sub-process describes how the national gas transmission network operator determines the system imbalance signal.

The national gas transmission network operator distinguishes between two variants depending on the time to which the SBS refers and the status of the near real-time allocations on which the SBS calculation is based:

- Accountable SBS
  The accountable SBS refers to an hourly period in the past. When determining the accountable SBS for the network points for which externally supplied near real-time allocations are expected, the national gas transmission network operator makes use of these externally supplied near real-time allocations. The accountable SBS is determined at a frequency of once per hour by the national gas transmission network operator and is available 15 - 20 minutes after the hour to which the SBS refers. When determining the

hourly period. This means that the current values are used for determining this POS for the network points where the national gas transmission network operator carries out the near real-time allocations.

accountable SBS a division is carried out in which the portfolio balance signals with a long position are aggregated and the portfolio balance signals with a short position are aggregated.

- Forecast SBS
  The forecast SBS refers to the next future hourly period[22]. When determining the forecast SBS the national gas transmission network operator makes use of the forecasts for the allocations at the end of the relevant hour (please see para. 3.8 for details of determining these forecasts at network points). The forecast SBS is updated at a frequency of once every 5 minutes by the national gas transmission network operator.

3.15 Publication of SBS by national gas transmission network operator

The 'Publication of POS by national gas transmission network operator' sub-process describes how the national gas transmission network operator makes the system imbalance signal available.

The national gas transmission network operator has three different channels for publishing the information:

- The GTS website
  The information on the GTS website can be freely accessed by anyone.
- An internet web page (GasPort)
  The information can be opened by the appropriately authorised acknowledged programme responsible parties (personally assigned certificate) with the aid of an internet browser.
- XML download facility (B2B-service)
  The required information is called up by the appropriately authorised acknowledged programme responsible party (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator.

The accountable SBS is shown as a separate value. In addition, the sum helpers and the sum causers are shown in the form of the aggregated portfolio balance signals with a long position and the aggregated portfolio signals with a short position.

The current information on the zone boundaries for each zone (light green, green and orange) is also made available via the three information channels specified.

Additional information about GasPort and the B2B-service can be found at the website of the national gas transmission network operator (http://www.gasunietransportservices.nl/en/products-services/gasport-and-b2b).

3.16 Determination of off-line readings by national gas transmission network operator

The 'Determination of off-line readings by national gas transmission network operator' sub-process refers to the network points for which the national gas transmission network operator is responsible for the metering system. For these network points the national gas transmission network operator meters at a frequency of once per hour the quantity of energy that has flowed since the start of that hour via that network point. It may be necessary to correct the metering data in response to any faults which occur during processing or on the basis of a plausibility check of the metering data.

[22]) The last forecast SBS for an hourly period is shown 5 minutes after the end of the relevant hourly period by the national gas transmission network operator and is based on the available information for the relevant hourly period. This means that the current values are used for determining this SBS for the network points where the national gas transmission network operator carries out the near real-time allocations. This also applies to the network points where all the near real-time allocations are part of a POS. In that specific case the individual near real-time allocations in the POSs total the near real-time reading in the SBS.

3.17 Determination of off-line readings by third parties

The 'Determination of off-line readings by third parties' sub-process refers to the network points for which metering is carried out by a party other than the national gas transmission network operator. For these network points the relevant party issues the quantity of energy for each individual hour in the relevant month following the month to which the readings refer. A protocol (AMIGA) has been set up to transmit the information between the supplying party and the national gas transmission network operator.

The final terms for supplying the metering data depends on the type of network point and are given in the Gas Allocation Code and will therefore not discussed in detail in this document.

3.18 Determination of off-line allocations by LDCs

The 'Determination of off-line allocations by LDCs' sub-process refers to the off-line allocation process as carried out by the local distribution company and, where relevant, by CDS-operators. This process is described in full in the Gas Allocation Code and will therefore not be described further in detail in this document.

The Wholesale Gas market model specifies that the allocations for local gas producers in the network areas supplied by the local distribution companies are assigned to the VPI and not to the relevant network area where the gas producer operates.
Two user categories are defined for gas producers in the network areas:

- A GIS user category for gas producers with an annual consumption of more than 1 million m^3 (n).
- A GIN user category for gas producers with an annual consumption of less than 1 million m^3 (n).
- In accordance with the sign conventions, the allocations supplied from the CSS (near real-time) and the LDCs and CDS-operators (off-line) are negative for these two categories of gas producer.

The sum of all allocations (consumers and producers) in a network area has to be the same as the MINFO message supplied by the national gas transmission network operator. The off-line allocations supplied by the local distribution companies and CDS-operators using the allocation and reconciliation message process are processed by the national gas transmission network operator. The national gas transmission network operator assigns the allocations for the gas producers to the VPI located on the entry side of the entry programme. Assignment to a VPI is carried out for each acknowledged programme responsible party[23]. In contrast, the sum of the allocations for a CDS has to be zero; the CDS-operator has to allocate the total entry-flow to the programme responsible party that the LDC has registered for the connection of the CDS to the network area.
The CDS-operator has to use a different connection point id (EAN) than the LDC for this allocation on the connection of the CDS to the network area of the LDC.

The LDC will also take care of the off-line allocation of net losses. The LDC will use the hourly calculated net losses per network area; these will be allocated to the appointed net loss connection (EAN) in the local net. The net losses in a CDS allocated implicitly to the PRP of the connection of the CDS to the net area.

3.19 Determination of off-line allocations for national gas transmission network operator connections - national gas transmission network operator

The 'Determination of off-line allocations for national gas transmission network operator connections – national gas transmission network operator' sub-process determines the off-line allocations for the national gas transmission network operator connections by the national gas transmission network operator for those network points for which the off-line allocations are not supplied externally (see paras. 3.18 and 3.20)

[23]) There is therefore no information available on the network area, the supplier or the user category at the VPI. With reference to the off-line allocations, the programme responsible party can break this down by network area and supplier on the basis of the allocation messages per network area supplied by the local distribution companies.

Use is made for this allocation process of the connection register of the national gas transmission network operator, the nominations submitted by the acknowledged programme responsible parties and the off-line metering data.

With regard to the connections of industrial users to the national gas transmission network, gas production locations to the national gas transmission network and the connections between private gas transmission networks and the national gas transmission network several acknowledged programme responsible parties can be active, though only the 'balancing' role is permitted. NNO network points can have several active acknowledged programme responsible parties. Acknowledged programme responsible parties can take the roles of 'proportional' and 'balancing' at this category of network points.

The Gas Allocation Code includes a provision whereby for a consumer with a connection to the national gas transmission network the total allocations per acknowledged programme responsible party per supplier per user category are made available to the relevant acknowledged programme responsible party by the national gas transmission network operator using the LALL message. This remains unchanged.

3.20 Determination of off-line allocations for national gas transmission network operator connections - third parties

In the 'Determination of off-line allocations for national gas transmission network operator connections - third parties' sub-process the off-line allocations are determined by a party other than the national gas transmission network operator.

Before starting to supply off-line allocations for a network point, the relevant acknowledged programme responsible parties and the national gas transmission network operator must have agreed on the method proposed. A further requirement is that the reading and the sum of the allocations for the relevant network point for each hour must agree exactly with each other[24].

Depending on the network point type, off line allocations are supplied in 2 or more versions to the national gas transmission network operator. The terms for the different types of network points are given in the Gas Allocation Code and will therefore not discussed in detail in this document

3.21 Reconciliation process by LDCs

The 'Reconciliation process by LDCs' sub-process refers to the off-line reconciliation process as carried out by the local distribution company. This process is described in full in the Gas Allocation Code and will therefore not be described further in detail in this document.

3.22 Processing of off-line peak supply by national gas transmission network operator

The peak supply is based on the planned capacity (-9°C) for the residential end user part for the network points which form a connection between the national gas transmission network and a local distribution network. The residential end user element of the planned capacity (-9 °C) contracted by the collective acknowledged programme responsible parties forms the basis for determining the off-line peak supply. The off-line assignment of the peak supply to the individual acknowledged programme responsible parties is carried out at a portfolio level.

[24]) These conditions are part of the current Transmission Service Conditions (TSC 2009-2)

The method employed for the distribution is that used for determining the exit capacity for the exit points which form the connection between the national gas transmission network and the local distribution network as described in the Gas Transport Code - National Gas Transmission Network Operator, with -9°C being used as the reference temperature for all months.

The off-line distribution is based on data from the connection registers of the local distribution companies as supplied at the latest on the 12th working day of the fourth month following the month to which the data refers.

If there has been a peak supply, the national gas transmission network operator will determine this based on the allocations in the LALL messages V3 and V4[25] supplied by the local distribution companies. The allocations as a result of peak supply are published by the national gas transmission network operator.

The national gas transmission network operator has two different channels for publishing the information (allocations):

- An internet web page (GasPort)
  The information can be opened by the appropriately authorised acknowledged programme responsible parties (personally assigned certificate) with the aid of an internet browser.
- XML download facility (B2B-service)
  The required information is called up by the appropriately authorised acknowledged programme responsible party (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator.

The peak supply is not taken into consideration for the reconciliation process (see para. 3.21). The reason for this is that the reconciliation process is a monthly process whereas the peak supply is expected to be restricted to a limited number of days.

Additional information about GasPort and the B2B-service can be found at the website of the national gas transmission network operator (http://www.gasunietransportservices.nl/transportinformatie/over-balancering/documenten/shippers-en-leveranciers).

3.23 Processing of off-line allocations of balance agreement - national gas transmission network operator

The 'Processing of off-line allocations of balance agreement - national gas transmission network operator' sub-process deals with the off-line processing of the transactions in connection with a balance agreement. The transfer of the gas from the balance-supplying party to the balance-receiving acknowledged programme responsible party takes place on the TTF[26]. Please refer to para. 3.7 for details of the balance agreement.

The national gas transmission network operator shows the balance-supplying acknowledged programme responsible party the off-line information for the exit portfolio of the balance-receiving acknowledged programme responsible party that is covered by the contracted balance agreement at the TTF point set up for dealing with the balance agreement. This information is made available by the national gas transmission network operator in the same way as that used for the allocations for the domestic users in the Gas Allocation Code - National Gas Transmission Network Operator in three versions (daily allocations [version 1], provisional allocations [version 2], definitive allocations [version 3] and correction to the definitive allocations [version 4]). The off-line allocations for the balance-supplying acknowledged programme responsible party will be sub-divided by user category.

The balance agreement is not taken into consideration for the reconciliation process (see para. 3.21) or the processing of residual energy (see Gas Allocation Code). The reason for this is that the

[25]) The LALL messages (V1 to V4) issued by the local distribution companies do not contain any information on the peak supply.

[26]) Specific TTF point set up to handle a balance agreement, located on the exit side of the exit programme

reconciliation process and the processing of residual energy are monthly processes while the balance agreement has a gas day as the smallest unit of time.

3.24 Publications of off-line allocations by national gas transmission network operator

The 'Publications of off-line allocations by national gas transmission network operator' sub-process describes how the national gas transmission network operator provides the appropriately authorised parties with the off-line allocations.

The national gas transmission network operator has two different channels for publishing the information:

- An internet web page (GasPort)
  The information can be opened by the appropriately authorised market parties (personally assigned certificate[27]) with the aid of an internet browser provided with a valid OTIS certificate.
- XML download facility (B2B-service)
  The required information is called up by appropriately authorised acknowledged market parties (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator.

Additional information about GasPort and the B2B-service can be found at the website of the national gas transmission network operator (http://www.gasunietransportservices.nl/transportinformatie/over-balancering/documenten/shippers-en-leveranciers).

The information made available by the national gas transmission network operator is:

- The allocations per network point are shown per acknowledged programme responsible party for the network areas[28]. If there has been a peak supply, these peak supply allocations are shown for the gas day in question.
- The allocations per network point per supplier are shown for each acknowledged programme responsible party for the national gas transmission network operator connections.
- The allocated quantity is shown at the TTF point set up for this purpose for the balance-supplying acknowledged programme responsible party with a breakdown by user category.

3.25 Determination of settlement by national gas transmission network operator

The 'Determination of settlement by national gas transmission network operator' sub-process determines for each acknowledged programme responsible party the difference in volume between the near real-time allocations (on which the portfolio imbalance signal is based) and the off-line allocations.

For each acknowledged programme responsible party, the difference in volume to be settled is calculated per hour by the national gas transmission network operator using the equation below:

$$Vv_{prog}(vp) = Entry_{offline,prog}(vp) + Exit_{offline,prog}(vp) - Entry_{plan,prog}(vp) - Exit_{plan,prog}(vp) - OB_{prog}(vp)$$

The substitution of the equation for determining the imbalance:

[27]) The personally assigned certificate ensures that the relevant market party only has access to the information to which he is authorised.

[28]) The further breakdown by supplier and user category is present in the LALL messages which are sent to the acknowledged programme responsible party directly by the local distribution company.

$$Vv_{prog}(vp) = Entry_{offline,prog}(vp) + Exit_{offline,prog}(vp) - Entry_{real,prog}(vp) - Exit_{real,prog}(vp)$$

The national gas transmission network operator performs the settlement monthly using the near real-time allocations per hour, the allocation data on the 16th working day following the month and the allocation data on the 10th working day of the fourth month following the month[29].

The settlement advance is calculated using the allocation data on the 16th working day following the month by subtracting the net deviation of the near real-time allocations with reference to the approved entry and exit programme from the net deviation of the off-line allocations identified on the 16th working day following the month with reference to the approved entry and exit programme.

The settlement payment is calculated using the allocation data on the 10th working day of the fourth month following the month by subtracting the net deviation of the off-line allocations on the 16th working day following the month with reference to the approved entry and exit programme from the net deviation of the off-line allocations identified on the 10th working day of the fourth month following the month with reference to the approved entry and exit programme.

3.26 Publication of settlement by national gas transmission network operator

The 'Publication of settlement by national gas transmission network operator' sub-process specifies how the national gas transmission network operator provides the appropriately authorised parties with the off-line allocations.

The national gas transmission network operator has two different channels for publishing the information:

- An internet web page (GasPort)
  The information can be opened by the appropriately authorised market parties (personally assigned certificate[30]) with the aid of an internet browser provided with a valid OTIS certificate.
- XML download facility (B2B-service)
  The required information is called up by appropriately authorised acknowledged market parties (personally assigned certificate) with the aid of a query to the national gas transmission network operator and is then made available by the national gas transmission network operator.

Additional information about GasPort and the B2B-service can be found at the website of the national gas transmission network operator (http://www.gasunietransportservices.nl/transportinformatie/over-balancering/documenten/shippers-en-leveranciers).

3.27 Monitoring of steering signal quality

In the 'Monitoring of steering signal quality' sub-process the quality of the steering signal received by the acknowledged programme responsible party is monitored. The procedure is as follows:

- Once a month the national gas transmission network operator defines the "settlement daily quantities " (SDH) per portfolio during the preceding month (for the purposes of the settlement process).

[29]) The determination is carried out using kWh as the unit. In the case of the off-line allocations which are supplied in MJ a conversion from MJ to kWh is carried out in advance.

[30]) The personally assigned certificate ensures that the relevant market party only has access to the information to which he is authorised.

- The average portfolio amount per gas day (PDH) per acknowledged programme responsible party is also determined once a month.
- The quality of the steering signal is monitored on the basis of the SDH / PDH variable. This variable is calculated monthly by the national gas transmission network operator per portfolio and the sum of all portfolios on the basis of the daily values of SDH / PDH. The above-mentioned report will form part of the NEDU Wholesale Gas allocation process quality monitor.

4 Description of sub-processes

4.1 Determination of near real-time readings by national gas transmission network operator

Name of sub-process	Determination of near real-time readings by national gas transmission network operator
Description of sub-process	The national gas transmission network operator determines the energy supplied or consumed on an hourly basis for each network point.
Roles	National gas transmission network operator
Performance objectives	- At a frequency of once every 5 minutes, starting on the hour, to collect and process the metering data on an energy basis for those network points for which the national gas transmission network operator is responsible. - The metering data has to be made available to appropriately authorised connected and acknowledged programme responsible parties at the latest 5 minutes after being determined by the national gas transmission network operator (see Publication of near real-time allocations by national gas transmission network operator/CSS).
Preconditions	- None
Post-conditions	- The quantity of energy on an hourly basis for the whole hours for each network point individually that is the responsibility of the national gas transmission network operator - For the interim periods an expectation of the hourly quantity on the basis of a linear extrapolation of the current reading
Scenario	- The national gas transmission network operator collects and processes the metering data for the network points for which the national gas transmission network operator is responsible.
Alternative scenarios	Where no metering data is available for a network point, the national gas transmission network operator determines a substitute value for that particular network point. The last correctly collected and processed reading is used as a substitute value.
Special requirements	None

4.2 Determination of near real-time readings by third parties

Name of sub-process	Determination of near real-time readings by third parties
Description of sub-process	The party responsible for the metering at a network point determines the energy supplied and consumed on an hourly basis for this network point.
Roles	Party responsible for metering at a network point National gas transmission network operator
Performance objectives	- At a frequency of once every 5 minutes, starting on the hour, to collect and process the metering data on an energy basis for those network points for which this party is responsible and to forward it to the national gas transmission network operator. - The metering data has to be made available to appropriately authorised connected and acknowledged programme responsible parties at the latest 5 minutes after being determined by the national gas transmission network operator (see Publication of near real-time allocations by national gas transmission network operator/CSS).
Preconditions	- None
Post-conditions	- The quantity of energy on an hourly basis for metering for the whole hours for each network point separately for which the party involved is responsible. - For the interim periods an expectation of the hourly quantity on the basis of a linear extrapolation of the current reading
Scenario	- The party responsible for metering at a network point collects and processes the metering data for the network points for which he is responsible for metering and makes the metering data available to the national gas transmission network operator.

	- The national gas transmission network operator provides the expected hourly quantity on the basis of a linear extrapolation of the current reading.
Alternative scenarios	Where no metering data is available for a network point, the national gas transmission network operator determines a substitute value for that particular network point. The last correctly collected and processed reading is used as a substitute value.
Special requirements	None

4.3 Determination of near real-time allocations in network areas

Name of sub-process	**Determination of near real-time allocations in network areas**
Description of sub-process	The party responsible for the metering at a network point determines the energy supplied and consumed on an hourly basis for this network point.
Roles	National gas transmission network operator Local distribution companies CDS-operator Metering responsible party Programme responsible parties
Performance objectives	- At a frequency of once an hour, 15 minutes after the hourly period to which the allocations refer, for each network point individually aggregated by acknowledged programme responsible party and user category, the national gas transmission network operator makes available the near real-time allocations for the individual network areas to appropriately authorised connected and acknowledged programme responsible parties.
Preconditions	- The local distribution companies and, where relevant, CDS-operators made the data from the connection register required for the near real-time allocations available to the CSS at the latest at 2:00 h prior to the gas day to which the information refers. - The national gas transmission network operator supplied the forecast of the daily average effective temperature to the CSS at the latest at 10:00 h prior to the gas day to which the forecast refers. - The national gas transmission network operator has a current overview of the network areas with network connections which have near real-time metering. - The LDC has provided CSS with the calculated hourly net losses per net area the latest 10 hours prior to the relevant gas day.
Post-conditions	- For all network points which form a connection between the national gas transmission network and a local gas transmission network the allocations for the network areas aggregated by acknowledged programme responsible party and user category are available per network area 15 minutes after the end of the hour. - For the interim periods an expectation of the hourly quantity on the basis of a linear extrapolation of the current reading
Scenario	- For all network points which form a connection between the national gas transmission network and a local gas transmission network the metering data or substitute metering data are made available to the CSS 5 minutes after the hour to which the metering data refers. - The metering responsible parties supply the metering data for the steering signal connections for which they are responsible at the latest 5 minutes after the hour to which the metering data refers. This also holds for metering responsible parties for connections to a CDS. - The metering responsible parties supply the metering data for the network connections with near real-time metering at the latest 5 minutes after the hour to which this metering data refers. - The CSS supplies the near real-time allocations to the national gas transmission network operator 13 minutes after the hourly period to which the allocations refer. - The national gas transmission network operator assigns the allocations with user categories GIS and GIN to the virtual point infeeds by programme responsible party and user category. - For the network areas with network connections provided with a near real-time readout the national gas transmission network operator determines the quantity of energy transmitted. - The national gas transmission network operator applies the allocation distribution for each network area individually to the interim 5-minute metering data. For the network areas with network connections provided with a near real-time readout the interim 5-minute period is corrected to take account of this before the allocation distribution is used.

Alternative scenarios	If no near real-time allocations are available from the CSS the last allocations received from the CSS are used as a distribution code. For network areas with network connections using a near real-time readout the most recent value is used which is based on the allocation data supplied by the CSS.
Special requirements	None

4.4 Determination of near real-time allocations of national gas transmission network operator connections by national gas transmission network operator

Name of sub-process	**Determination of near real-time allocations of national gas transmission network operator connections by national gas transmission network operator**
Description of sub-process	The national gas transmission network operator determines the allocations of the energy supplied or consumed on an hourly basis for each network point.
Roles	National gas transmission network operator
Performance objectives	- At a frequency of once every 5 minutes, starting on the hour, to allocate the readings on an energy basis for those network points for which the national gas transmission network operator is responsible. - The metering data has to be made available to appropriately authorised connected and acknowledged programme responsible parties at the latest 5 minutes after being determined by the national gas transmission network operator.
Preconditions	- The role distribution for the acknowledged programme responsible parties active at a network point is available in the national gas transmission network operator's connection register.
Post-conditions	- The allocations on an hourly basis for the whole hours for each network point individually that is the responsibility of the national gas transmission network operator - For the interim periods an expectation of the hourly quantity on the basis of a linear extrapolation of the current allocations
Scenario	- The national gas transmission network operator carries out the allocations for the network points for which the national gas transmission network operator is responsible.
Alternative scenarios	
Special requirements	None

4.5 Determination of near real-time allocations of national gas transmission network operator connections

Name of sub-process	**Determination of near real-time allocations of national gas transmission network operator connections by third parties**
Description of sub-process	The party responsible for the allocations at a network point determines for this network point the near real-time allocations of the energy supplied or consumed on an hourly basis for the acknowledged programme responsible parties active at this network point.
Roles	Party responsible for the allocations at a network point National gas transmission network operator
Performance objectives	- At a frequency of once an hour, 13 minutes after the hourly period to which the allocations refer, for each network point individually aggregated by acknowledged programme responsible party and user category, the party responsible for supplying the near real-time allocations to a network point makes these available to the national gas transmission network operator. - The national gas transmission network operator makes the near real-time allocations for the relevant network point available to appropriately authorised connected and acknowledged programme responsible parties 15 minutes after the hourly period to which the allocations refer.
Preconditions	- If the national gas transmission network operator is responsible for metering at the network point, he makes the near real-time reading available to the party responsible for carrying out the near real-time allocations at the latest

	5 minutes after the hourly period to which the reading refers.
Post-conditions	- For all network points for which a party other than the national gas transmission network operator is responsible for the near real-time allocations […] 15 minutes after the hourly period to which the allocations refer. - For the interim periods an expectation of the hourly quantity on the basis of a linear extrapolation of the current reading
Scenario	- For all network points for which the near real-time allocations are carried out by a different party the metering data or substitute metering data is available to this party 5 minutes after the hourly period to which the metering data refers. - The party responsible for supplying the near real-time allocations makes these available to the national gas transmission network operator 13 minutes after the hourly period to which the allocations refer.
Alternative scenarios	If no data has been supplied to the national gas transmission network operator 13 minutes after the hourly period to which the near real-time allocations refer, the national gas transmission network operator defines substitute near real-time allocations for such a network point on the basis of a standard allocation role distribution.
Special requirements	None

4.6 Processing of near real-time peak supply

Name of sub-process	**Processing of near real-time peak supply**
Description of sub-process	In the event of a peak supply, the national gas transmission network operator processes the effects of the peak supply in the portfolios of the relevant acknowledged programme responsible parties.
Roles	National gas transmission network operator
Performance objectives	- Verification and processing of the peak supply takes place once an hour directly after the CSS has supplied the near real-time allocations for the network areas.
Preconditions	- Total planned capacity for all individual network areas broken down by acknowledged programme responsible party with a LB licence in accordance with the method used for contracting the LDC exit capacity at a reference temperature of -9°C. - The near real-time allocations for all network areas from the CSS - The distribution of the network areas per portfolio per acknowledged programme responsible party
Post-conditions	- The residential end user (G1A and G2A) quantity to be allocated to the acknowledged programme responsible party at the exit side in the exit programme for each portfolio, taking account of peak supply.
Scenario	- The national gas transmission network operator verifies for each portfolio the sum of all residential end user allocations for all network areas against the total planned capacity for residential end users at a portfolio level (-9°C). - As soon as the actual residential end user consumption exceeds the planned capacity for an acknowledged programme responsible party's portfolio, the national gas transmission network operator allocates the planned residential end user capacity broken down by residential end user categories for the relevant portfolio.
Alternative scenarios	
Special requirements	Processing of the peak supply does not take place at a network point level. For the near real-time residential end user allocations, the entire residential end user quantity is allocated to the relevant acknowledged programme responsible parties at a network point level even at a time of peak supply.

4.7 Processing of near real-time balance agreement

Name of sub-process	**Processing of near real-time balance agreement**
Description of sub-process	In the event of a balance agreement, the national gas transmission network operator processes the results of the balance agreement in the portfolio

	imbalance signals of the relevant acknowledged programme responsible parties.
Roles	National gas transmission network operator
Performance objectives	- Processing of the balance agreement in the portfolios of the acknowledged programme responsible parties involved takes place once an hour directly after the CSS has supplied the near real-time allocations for the network areas. - The national gas transmission network operator supplies the aggregated near real-time quantities of energy in the current hour per portfolio per balance-supplying acknowledged programme responsible party per balance agreement at a frequency of once every 5 minutes for the 5-minute periods. The national gas transmission network operator also provides a forecast of the expected hourly quantity on the basis of the quantity of energy for the most recent 5-minute period.
Preconditions	- Details of the balance agreement as agreed between the acknowledged programme responsible parties - The near real-time allocations for all network areas from the CSS which are covered by the balance agreement - The near real-time allocations for all network points covered by the balance agreement and for which the near real-time allocations are supplied by a party other than the national gas transmission network operator - If applicable, the peak supply for the residential end user fraction covered by the balance agreement must be known.
Post-conditions	- The quantity of energy to be transmitted under a balance agreement for the relevant portfolio of the balance-supplying acknowledged programme responsible party/parties and the relevant portfolio of the balance-receiving acknowledged programme responsible party at the TTF point set up for this purpose
Scenario	- In the event of a peak supply, the national gas transmission network operator corrects the residential end user fraction of the portfolio of the balance-receiving acknowledged programme responsible party covered by the balance agreement to take account of the peak supply. - The national gas transmission network operator determines the aggregated quantity of energy transmitted per portfolio per balance-supplying acknowledged programme responsible party on the basis of the details of the balance agreement and the near real-time allocations of the relevant balance-receiving acknowledged programme responsible party.
Alternative scenarios	
Special requirements	None

4.8 Publication of near real-time allocations by national gas transmission network operator

Name of sub-process	Publication of near real-time allocations by national gas transmission network operator
Description of sub-process	The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the near real-time allocations.
Roles	National gas transmission network operator Authorised acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator provides metering data and allocations 5 minutes after the 5-minute period to which the information refers at a frequency of once every 5 minutes. The national gas transmission network operator also provides a forecast of the expected hourly quantity on the basis of the quantity of energy for the most recent 5-minute period.
Preconditions	- The near real-time readings are available for all network points. - The near real-time allocations are available for all network points. - The acknowledged programme responsible party holds a valid certificate which uniquely identifies him.
Post-conditions	- The acknowledged programme responsible party has the near real-time allocations for the network points where the relevant acknowledged programme responsible part is active.
Scenario	- The national gas transmission network operator provides the near real-time readings and allocations.
Alternative scenarios	

Special requirements	Acknowledged programme responsible parties with a LB licence also have access to the near real-time readings for the network areas.

4.9 Allocation of Within Day Balancing Action measures by national gas transmission network operator

Name of sub-process	Allocation of Within Day Balancing Action measures by national gas transmission network operator
Description of sub-process	The national gas transmission network operator allocates the quantity of Within Day Balancing Action gas he has called off to the causing programme responsible party/parties.
Roles	National gas transmission network operator Causing programme responsible party
Performance objectives	- The national gas transmission network operator sends confirmation messages to the causing programme responsible party/parties.
Preconditions	- The portfolio imbalance signals from the acknowledged programme responsible party/parties at the start of the hour when the Within Day Balancing Action was invoked
Post-conditions	- The causing programme responsible party is notified of the quantity of Within Day Balancing Action gas for which he will be billed as a consequence of the Within Day Balancing Action.
Scenario	- The national gas transmission network operator determines the sum of all causing programme responsible party/parties (Σ $POS_{causing\ parties}$) on the basis of the portfolio imbalance signals at the start of the hour when the Within Day Balancing Action was invoked. - Assignment of the quantity of confirmed Within Day Balancing Action gas is carried out by the national gas transmission network operator on the basis of the individual contribution of a causing programme responsible party ($POS_{causing\ party}$/(Σ $POS_{causing\ parties}$) in the hour when the Within Day Balancing Action measures (are meant to) become active. - Confirmation messages are sent to the causing programme responsible party/parties by the national gas transmission network operator. - The Within Day Balancing Action transactions are carried out at the Balancing Virtual Point (BVP).
Alternative scenarios	
Special requirements	

4.11 Allocation of emergency measures by national gas transmission network operator

Name of sub-process	Allocation of emergency measures by national gas transmission network operator
Description of sub-process	The national gas transmission network operator allocates the emergency measures he has called off to the causing programme responsible party/parties.
Roles	National gas transmission network operator Causing programme responsible party
Performance objectives	- The national gas transmission network operator sends confirmation messages to the causing programme responsible party/parties.
Preconditions	- The portfolio imbalance signals from the acknowledged programme responsible party/parties at the start of the hour when the emergency measure call was made
Post-conditions	- The causing programme responsible party is notified of the quantity of emergency measure gas for which he will be billed as a consequence of the Within Day Balancing Actions.
Scenario	- The national gas transmission network operator determines the sum of all causing programme responsible party/parties (Σ $POS_{causing\ parties}$) on the basis

	of the portfolio imbalance signals at the start of the hour when the emergency measure call was made. - Assignment of the quantity of emergency measure gas called off is carried out by the national gas transmission network operator on the basis of the individual contribution of a causing programme responsible party ($POS_{causing\ party}/(\Sigma\ POS_{causing\ parties})$) in the hour when the Within Day Balancing Action measures (are meant to) become active. - Confirmation messages are sent to the causing programme responsible party/parties by the national gas transmission network operator. - The emergency measure transactions are carried out at the Emergency Measure Volume Point (NVP).
Alternative scenarios	
Special requirements	

4.12 Determination of POS

Name of sub-process	Determination of POS
Description of sub-process	The national gas transmission network operator determines the portfolio imbalance signals for all acknowledged programme responsible parties.
Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator determines the accountable POS readings per portfolio for all the acknowledged programme responsible parties once an hour. - The national gas transmission network operator determines the forecast POS readings for the next hourly period per portfolio for all the acknowledged programme responsible parties once every 5 minutes.
Preconditions	- The accountable near real-time allocations for all the network points which form part of the relevant portfolio - The programme(s) submitted by the acknowledged programme responsible party
Post-conditions	- Updated value for the POS readings per portfolio for all the acknowledged programme responsible parties
Scenario	- The national gas transmission network operator determines the basic portfolio imbalance for the relevant hour on the basis of the near real-time allocations and the programme. If applicable, the national gas transmission network operator takes any peak supply and/or balance agreement into account. - The national gas transmission network operator examines whether any Within Day Balancing Action and/or emergency measure confirmations occur for the relevant portfolio in the hour in question. - The national gas transmission network operator updates the POS readings for the preceding hour with the basic portfolio imbalance for the relevant hour and the Within Day Balancing Action and/or emergency measure confirmations.
Alternative scenarios	
Special requirements	

4.13 Publication of POS

Name of sub-process	Publication of POS
Description of sub-process	The national gas transmission network operator provides the relevant acknowledged programme responsible party with the POS readings of the portfolio(s).
Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the accountable POS per portfolio once an hour. - The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible parties with a forecast

	POS for the next future hourly period per portfolio once every 5 minutes.
Preconditions	- The accountable and forecast POS reading is available. - The acknowledged programme responsible party holds a unique certificate.
Post-conditions	- The acknowledged programme responsible party has the accountable POS and the forecast POS for the portfolio(s) for which the relevant acknowledged programme responsible party is responsible.
Scenario	- The national gas transmission network operator publishes the information in his systems so that the acknowledged programme responsible party can view or download this information.
Alternative scenarios	
Special requirements	

4.14 Determination of SBS

Name of sub-process	Determination of SBS
Description of sub-process	The national gas transmission network operator determines the system balance signal.
Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator determines the accountable SBS including the sum of the imbalance-reducing programme responsible party/parties (Σ $POS_{helpers}$) and the sum of the causing programme responsible party/parties (Σ $POS_{causing\ parties}$) once an hour. - The national gas transmission network operator determines a forecast SBS for the next future hourly period once every 5 minutes.
Preconditions	- The accountable POS readings for all portfolios - The forecast POS readings for all portfolios -
Post-conditions	- Updated value for the SBS
Scenario	- The national gas transmission network operator determines the accountable SBS by totalling the accountable POS readings for all the portfolios. The sum of the imbalance-reducing programme responsible party/parties (Σ $POS_{helpers}$) and the sum of the causing programme responsible party/parties (Σ $POS_{causing\ parties}$) are also determined at the same time. - The national gas transmission network operator determines the forecast SBS by totalling the forecast POS readings for all the portfolios at the relevant time.
Alternative scenarios	
Special requirements	

4.15 Publication of SBS

Name of sub-process	Publication of SBS
Description of sub-process	The national gas transmission network operator publishes the SBS for the market.
Roles	National gas transmission network operator Acknowledged programme responsible party Other market parties
Performance objectives	- The national gas transmission network operator provides all the market parties with the accountable SBS once an hour. - The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the accountable SBS in the form of the sum of the imbalance-reducing programme responsible party/parties (Σ $POS_{helpers}$) and the sum of the causing programme responsible party/parties (Σ $POS_{causing\ parties}$) once an hour - The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible parties with a forecast SBS for the next hourly period per portfolio once every 5 minutes.
Preconditions	- The accountable and forecast SBS reading is available. - The acknowledged programme responsible party holds a unique certificate.
Post-conditions	- The market has an accountable SBS reading. - The acknowledged programme responsible parties have the accountable SBS

	reading in the form of (Σ $POS_{helpers}$) and (Σ $POS_{causing\ parties}$).
Scenario	- The national gas transmission network operator publishes the information in his systems so that the market and the acknowledged programme responsible party can view or download this information.
Alternative scenarios	
Special requirements	

4.16 Determination of off-line readings by national gas transmission network operator

Name of sub-process	Determination of off-line readings by national gas transmission network operator
Description of sub-process	The national gas transmission network operator determines the energy supplied or consumed on an hourly basis for each network point.
Roles	National gas transmission network operator
Performance objectives	- At a frequency of once every working day to collect and process the metering data on an energy basis for those network points for which the national gas transmission network operator is responsible
Preconditions	- None
Post-conditions	- The quantity of energy on an hourly basis for the whole hours for each network point individually that is the responsibility of the national gas transmission network operator
Scenario	- The national gas transmission network operator collects and processes the metering data for the network points for which the national gas transmission network operator is responsible. Corrections can be applied to the metering data on the basis of alarm messages and the results of plausibility checks.
Alternative scenarios	
Special requirements	None

4.17 Determination of off-line readings by third parties

Name of sub-process	Determination of off-line readings by third parties
Description of sub-process	The party responsible for the metering at a network point determines the energy supplied and consumed on an hourly basis for this network point.
Roles	Party responsible for metering at a network point National gas transmission network operator
Performance objectives	- At a frequency of once a month, to collect and process the metering data on an energy basis for those network points for which this party is responsible and to forward it to the national gas transmission network operator
Preconditions	- None
Post-conditions	- The quantity of energy on an hourly basis for metering for the whole hours for each network point separately for which the party involved is responsible
Scenario	- The party responsible for metering at a network point collects and processes the metering data for the network points for which he is responsible for metering and makes the metering data available to the national gas transmission network operator. Corrections can be applied to the metering data on the basis of alarm messages and the results of plausibility checks.
Alternative scenarios	
Special requirements	None

4.18 Determination of off-line allocations of national gas transmission network operator connections by national gas transmission network operator

Name of sub-process	Determination of off-line allocations of national gas transmission network operator connections by national gas transmission network operator
Description of sub-process	The national gas transmission network operator determines the allocations of the energy supplied or consumed on an hourly basis for each network point.
Roles	National gas transmission network operator
Performance objectives	- At a frequency as specified in the Gas Allocation Code, to allocate the metering data on an energy basis for those network points for which the national gas transmission network operator is responsible.
Preconditions	- The role distribution for the acknowledged programme responsible parties active at a network point is available in the national gas transmission network operator's connection register.
Post-conditions	- The allocations on an hourly basis for the whole hours for each network point individually that is the responsibility of the national gas transmission network operator
Scenario	- The national gas transmission network operator carries out the allocations for the network points for which the national gas transmission network operator is responsible in accordance with the Gas Allocation Code.
Alternative scenarios	
Special requirements	None

4.19 Determination of off-line allocations of national gas transmission network operator connections by third parties

Name of sub-process	Determination of off-line allocations of national gas transmission network operator connections by third parties
Description of sub-process	The party responsible for the allocations at a network point determines the allocations of the energy supplied or consumed on an hourly basis for the acknowledged programme responsible parties active at this network point.
Roles	Party responsible for the allocations at a network point National gas transmission network operator
Performance objectives	- At a frequency of twice a month, for each network point individually aggregated by acknowledged programme responsible party, the party responsible for supplying the near real-time allocations at a network point makes these available to the national gas transmission network operator. The supply of the allocations takes place at the latest on the 6th working day and the 16th working day following the month to which the allocations refer.
Preconditions	- If the national gas transmission network operator is responsible for metering at the network point, he provides the party who is responsible for carrying out the off-line allocations with the off-line reading. The supply of the metering data by the national gas transmission network operator takes place at the latest on the 4th working day and the 14th working day following the month to which the readings refer.
Post-conditions	- The allocations are available for the off-line allocations for all the network points for which a party other than the national gas transmission network operator is responsible.
Scenario	- For all the network points for which the off-line allocations are carried out by a different party the off-line metering data is made available to this party. - The party responsible for supplying the off-line allocations makes these available to the national gas transmission network operator.
Alternative scenarios	
Special requirements	None

4.20 Processing of off-line peak supply

Name of sub-process	Processing of off-line peak supply
Description of sub-process	In the event of a peak supply, the national gas transmission network operator processes the effects of the peak supply in the portfolios of the relevant acknowledged programme responsible parties.

Roles	National gas transmission network operator
Performance objectives	- The final verification and processing of the peak supply takes place on the basis of the V4 LALL messages for the network areas. -
Preconditions	- Total planned capacity for all network areas broken down by acknowledged programme responsible party with a LB licence in accordance with the method used for contracting the LDC exit capacity at a reference temperature of -9°C. - The Version 4 LALL messages supplied by the local distribution companies - The distribution of the network areas per portfolio per acknowledged programme responsible party
Post-conditions	- The residential end user (G1A and G2A) quantity to be allocated to the acknowledged programme responsible party at the exit side in the exit programme for each portfolio, taking account of peak supply
Scenario	- The national gas transmission network operator verifies the sum of all the residential end user allocations per portfolio for all the network areas against the total planned capacity per portfolio for residential end users (-9°C). - As soon as the actual residential end user consumption exceeds the planned capacity for an acknowledged programme responsible party's portfolio, the national gas transmission network operator allocates the planned residential end user capacity broken down by residential end user categories for the relevant portfolio.
Alternative scenarios	
Special requirements	

4.21 Processing of off-line balance agreement

Name of sub-process	**4.21 Processing of off-line balance agreement**
Description of sub-process	In the event of a balance agreement, the national gas transmission network operator processes the results of the balance agreement in the off-line allocations at the TTF point set up for this purpose.
Roles	National gas transmission network operator
Performance objectives	- Processing of the balance agreement in the off-line allocations at the TTF point set up for this purpose takes place on the basis of all versions of LALL messages (LALL ~~V1~~ V2 to LALL V4).
Preconditions	- Details of the balance agreement as agreed between the acknowledged programme responsible parties - The LALL messages for the domestic network points covered by the balance agreement - If applicable, the peak supply for the residential end user fraction covered by the balance agreement must be known.
Post-conditions	- The quantity of energy to be transferred under a balance agreement between the relevant portfolio of the balance-supplying acknowledged programme responsible party/parties and the relevant portfolio of the balance-receiving acknowledged programme responsible party at the TTF point set up for this purpose
Scenario	- In the event of a peak supply, the national gas transmission network operator corrects the residential end user fraction of the balance-receiving acknowledged programme responsible party covered by the balance agreement to take account of the peak supply. - The national gas transmission network operator determines the aggregated quantity of energy transferred per portfolio per balance-supplying acknowledged programme responsible party per user category on the basis of the details of the balance agreement and the off-line allocations of the portfolio of the relevant balance-receiving acknowledged programme responsible party.
Alternative scenarios	
Special requirements	None

4.22 Publication of off-line allocations

Name of sub-process	Publication of off-line allocations
Description of sub-process	The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the off-line allocations.
Roles	National gas transmission network operator Authorised acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator publishes the off-line readings and allocations.
Preconditions	- The off-line allocations are available for all network points. - The acknowledged programme responsible party holds a valid certificate which uniquely identifies him.
Post-conditions	- The acknowledged programme responsible party has the off-line allocations for the network points where the relevant acknowledged programme responsible party is active.
Scenario	- The national gas transmission network operator publishes the off-line allocations for all network points. In the event of a peak supply, the residential end user allocations are broken down by user category and supplier.
Alternative scenarios	
Special requirements	

4.23 Determination of settlement

Name of sub-process	Determination of settlement
Description of sub-process	The national gas transmission network operator determines the difference in volume between the near real-time and the off-line allocations per portfolio per programme responsible party.
Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator carries out the settlement process in two stages using the version 3 LALL messages and the version 4 LALL messages.
Preconditions	- The near real-time allocations are available. - The off-line allocations including the LALL V3.0 are available for the first stage - The off-line allocations including the LALL V4.0 are available for the final stage
Post-conditions	- The acknowledged programme responsible party has access to the settled volume for the period of one month on an hourly basis.
Scenario	- The national gas transmission network operator determines the difference in volume after the 16th working day of the month following the month to which the settlement refers on the basis of off-line allocations including the V3.0 LALL messages and the near real-time allocations per hour per portfolio. - The national gas transmission network operator determines the difference in volume after the 10th working day of the fourth month following the month to which the settlement refers on the basis of off-line allocations including the V4.0 LALL messages and the near real-time allocations per hour per portfolio.
Alternative scenarios	
Special requirements	

4.24 Publication of settlement

Name of sub-process	Publication of settlement
Description of sub-process	The national gas transmission network operator provides the relevant acknowledged programme responsible party with the settlement volume of the portfolio(s).

Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the information on the daily difference in volume in the month following the month to which the settlement refers. - The national gas transmission network operator provides the appropriately authorised acknowledged programme responsible party with the definitive information on the difference in volume four months after the month to which the settlement refers.
Preconditions	- The provisional difference in volume (first settlement bill) - The definitive difference in volume (final settlement bill) - The acknowledged programme responsible party holds a unique certificate.
Post-conditions	- The acknowledged programme responsible party has the difference in volume on an hourly basis (settlement process) for the relevant month.
Scenario	- The national gas transmission network operator publishes the information in his systems so that the acknowledged programme responsible party can view or download this information.
Alternative scenarios	
Special requirements	

4.25 Monitoring of steering signal quality

Name of sub-process	**Monitoring of steering signal quality**
Description of sub-process	The national gas transmission network operator provides monthly data to the NEDU Wholesale Gas Allocation Process Quality Monitor on the basis of which the quality of the steering signal can be evaluated.
Roles	National gas transmission network operator Acknowledged programme responsible party
Performance objectives	- The national gas transmission network operator provides the NEDU Wholesale Gas Allocation Process Quality Monitor with the information on the SDH/SPH quality parameter in the month following the month to which the settlement refers.
Preconditions	- The settlement daily quantities per portfolio - The accountable hourly allocations at the entry and exit sides per portfolio
Post-conditions	- The reports from the NEDU Wholesale Gas Allocation Process Quality Monitor provide the acknowledged programme responsible party with the variable for determining the quality of the steering signal.
Scenario	- The national gas transmission network operator provides the NEDU Wholesale Gas Allocation Process Quality Monitor with the information for evaluating the quality of the steering signal.
Alternative scenarios	
Special requirements	

Appendix: Balance agreement

The graphic below shows the difference between using the 'own-use' and 'minimum' options in the balance agreement for the balance-supplying acknowledged programme responsible party and the balance-receiving acknowledged programme responsible party.