

Wholesale gas

# Reconciliation messaging process

<b>Name:</b>	Reconciliation messaging process	<b>Version:</b>	4.0
<b>Reference:</b>		<b>Status:</b>	Final
<b>Date:</b>	29-05-2018	<b>Author:</b>	EDSN BI&A

<b>Changes</b>			
<b>Version</b>	<b>Date</b>	<b>Changes</b>	<b>By</b>
1.0	28-02-2012	Initial version	AT
1.1	01-03-2012	Review comments ICWG and market party specialists incorporated. Error codes for conf messages added.	AT
1.2	07-03-2012	Approved by ALV NEDU	EDSN
1.2a	11-06-2012	Bug fix: 2.5 Return codes: 40G and 41G have been 'marked yellow' (also in use in other messaging processes).	EDSN
1.3	23-12-2013	User category "GMN" added for "Netverlies gas" (net loss).	EDSN
1.99	27-01-2014	Version for approval by ALV NEDU	EDSN
2.0	05-02-2014	Approved by ALV NEDU	EDSN
2.1	04-11-2014	User category "GMN" removed as a result of the verdict of the "College van Beroep voor het Bedrijfsleven" (CBB).	EDSN
2.6	14-11-2014	Version to inform IC WG and PAB	EDSN
2.9	05-01-2015	Version for approval by ALV NEDU	EDSN
3.0	14-01-2015	Approved by ALV NEDU	EDSN
3.1	19-11-2015	User category "GMN" added for "Netverlies gas" (net loss).	EDSN
3.3	16-12-2015	Version to inform IC WG and PAB	EDSN
3.9	26-02-2016	Version for approval by ALV NEDU	EDSN
3.91	18-04-2018	Version to inform IC WG and PAB	EDSN
3.92	02-05-2018	Version to inform IC WG and PAB	EDSN
3.99	14-05-2018	Version for approval by ALV NEDU	EDSN
4.0	29-05-2018	Approved by ALV NEDU	EDSN

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## 1. GENERAL

### 1.1. Introduction

This document outlines the messaging of the reconciliation process at LDC<sup>1</sup> main grid network points (a.k.a. grid areas (*netgebieden*)). This document replaces the previous functional description of this messaging process *Reconciliation (2.2).doc*. The immediate cause for the replacement of the latter document is the migration to XML messages as of November 2012.

'Reconciliation' means calculating the volume difference per shipper between the "actual" volume delivered by a shipper based on (yearly) meter readings and the attributed volume based on the profile methodology to that shipper. The processing of certain types of measurement corrections are incorporated in the reconciliation process as well. The volume differences per shipper calculated in this way are settled between the shippers concerned on the basis of the standard price.

Determining the volume to be reconciled is done by the network operators; the financial settlement – determination of the amount to be paid or to be received per shipper – is facilitated by GTS.

The reconciliation process is supported, inter alia, by a number of messages. The LDCs send the volume to be reconciled per month to GTS, the shippers and the suppliers. GTS sends the cumulative amount to be paid or to be received per shipper to the shippers.

This document gives a functional description of the reconciliation messages used as well as some general principles relating to the process and the messages.

### 1.2. When did reconciliation start?

Gas reconciliation started when the gas market was liberalised, i.e. 1 July 2004, 06:00 (LET). As a result of this, the first messages, as described in this document, were sent in August 2004. All reconciliation messages contain 17 months of data.

### 1.3. Definitions

The following definitions are used:

- Reconciliation period:** the maximum period taken into account for carrying out the reconciliation; this period consists of a number of complete gas calendar months, ending on the last gas day of the previous calendar month and covers a maximum of 17 months;
- Network point:** logical network point within the network of Gastransport Services. In the context of this document a network point refers to a grid area (an LDC network point, the point of transfer of gas from GTS to LDC);
- LDC:** a local distribution company (*Regionaal Netbedrijf*);
- GTS:** Gastransport Services, the Transmission System Operator (TSO) in the Netherlands;
- Gas day:** a period that begins at 06:00 (LET) of a calendar day and ends at 06:00 (LET) of the following calendar day. The date of a gas day will be the date on which the gas day begins as described above;
- Gas month:** the period that begins at 06:00 (LET) on the first day of a calendar month and ends at 06:00 (LET) on the first day of the next calendar month, e.g. 1 April 2011, 06:00 to 1 May 2011, 06:00;
- Sign convention:** the following sign conventions (+, -) apply within GTS:
  - gas leaving the GTS grid has a positive sign;
  - gas entering the GTS grid has a negative sign.

This means that measurements, nominations and allocations must be sent according to this sign convention, in other words:

  - flow measurements from TSO to LDC are positive;
  - allocations from LDC to TSO are positive;
  - the following applies to reconciliation for messages that GTS sends out to shippers – for the allocation delta and amounts:

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<sup>1</sup> Local Distribution Company (*RNB; Regionaal Netbedrijf*)

- '-' = creditor, shipper has delivered less than stated in previous messages (less commodity has flowed from the portfolio than stated earlier), i.e. the shipper receives commodity costs back from GTS;
- '+' = debtor, shipper has delivered more than stated in previous messages (more commodity has flowed from the portfolio than stated earlier), i.e. shipper must pay extra commodity costs to GTS;
- User category: classification of the type of connection, based on the characteristics of the connection (e.g. hourly capacity, yearly usage, etc.). Possible values of the user category: G1A, G2A, G2C, GGV, GXX, GKV, GMN, GIN and GIS;
- Measurement correction factor (MCF): factor is determined by LDC per hour as follows:
  - $A = [\text{offtake at network point (grid area)}] \text{ minus } [\text{sum of (hourly measured connections)}]$ ;
  - $B = \text{calculated offtake for the profiled connections on the basis of the profiles}$ ;
  - $\text{MCF} = A / B$ ;
- Monthly measurement correction factor (MMCF): a measurement correction factor on a monthly basis, which is calculated after the reconciliation. The MMCF will be set to one (1) as of 1-1-2015;
- Shipper: refers to "erkende programma verantwoordelijke" and means a party acknowledged by GTS that by consequence executes program responsibility. A shipper is identified by an EAN code;
- Suppliers: those who supply gas to a consumer. A supplier is identified by an EAN code;
- Reconciliation month: is the most recent calendar month occurring in the reconciliation message.

## 1.4. Basic principles

1. If, for a particular shipper-supplier combination, there is no supply in a particular user category, this category will not be included in the message (as it will show nothing but 0 values). In other words: it is not compulsory to include all user categories in the message. Only the user categories which have been delivered by the relevant shipper-supplier combination. Exceptions occur when a certain combination has existed earlier, please refer to for 3.1 RNINFO details.
2. The reconciliation messages always contain 17 months of data. The reconciliation messages (RNINFO) are sent, after LALL version 4, but before working day 10 in the 5<sup>th</sup> month (after the reconciliation month).
3. Upon receipt of a new RNINFO message, GTS checks the new allocation value (previous message) against the old allocation value (new message) for each shipper/supplier combination (given as totals across the user categories). Simplified example:

Message 1 (old message)

<i>Month</i>	<i>Reconciliation old (ENERGY)</i>	<i>Reconciliation new (ENERGY)</i>
201111	1058700	1058600
201112	1060800	1060600
201301	1048000	1049000
201302	1065400	1064900
201303	1040700	1040200

Message 2 (new message)

<i>Month</i>	<i>Reconciliation old (ENERGY)</i>	<i>Reconciliation new (ENERGY)</i>
201112	1060600	1016453
201201	1059888	1059880
201302	1064900	1064900
201303	1040200	1041400
201304	1040822	1040800

GTS compares 'Reconciliation old' with 'Reconciliation new' from the previous message. The values ought to be the same.

4. For the 'newest month' in the message, the reconciliation value old is equal to the LALL allocation, version 4.

## 2. GENERAL POINTS ABOUT MESSAGES

### 2.1. Naming of messages

Messages are named as follows:

1 <sup>st</sup> letter of message name:	Meaning:
R	Reconciliation message
2 <sup>nd</sup> letter of message name:	Meaning:
N	Message from <u>N</u> etwork company (LDC) to System Operator (GTS), shipper or supplier.
S	Message from <u>S</u> ystem Operator to shipper.

Message name ends with:	Meaning:
INFO	Primary message with the actual information.
CONF	Acknowledgement of a received message. The return code is given in the message (see 2.5).

### 2.2. Global description of messages

1) Reconciliation message from LDC to GTS, shipper and supplier

a) RNINFO

Message sent by LDC to system operator, shipper and supplier, which states the ascertained deviations<sup>2</sup> as a result of the reconciliation process at the network points for the previous 17 months. The previous and current volumes to be reconciled are stated in the message per network point, per month and per shipper / supplier combination;

b) RNCONF

Message from system operator, shipper or supplier to LDC, with a return code relating to the RNINFO message;

2) Reconciliation message from system operator (TSO) to shipper

a) RSINFO

Message from TSO to shipper, which states the ascertained deviations as a result of the reconciliation process at the network points for the previous 17 months, including the financial consequences of this;

b) RSCONF

Message from shipper to TSO, with a return code relating to the RSINFO message.

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<sup>2</sup> With regard to the last allocation in the version 4 allocation message.

Viewed as a matrix, the different messages, the senders and the receivers are as shown below:

From	To	TSO	LDC	Shipper	Supplier
GTS		n/a	RNCONF	RSINFO	
LDC		RNINFO	n/a	RNINFO	RNINFO
Shipper		RSCONF	RNCONF	n/a	
Supplier			RNCONF		N/a

### 2.3. Units

The following units are used within the message interaction:

Variable	Unit	Comments
Energy	MJ	Used in: <ul style="list-style-type: none"> <li>Reconciliation old</li> <li>Reconciliation new</li> <li>Delta reconciliation (energy)</li> </ul>
Amount of money	Euro	Used in: <ul style="list-style-type: none"> <li>Delta reconciliation (amount of money)</li> </ul>
Gas price	Euro / MJ	Used in: <ul style="list-style-type: none"> <li>Gas price</li> </ul>
Monthly measurement correction factor	-	Used in: <ul style="list-style-type: none"> <li>MMCF</li> </ul>



## 2.4. Types of definition

The following types of definitions are used in the message specifications:

Type	Value	Example
EAN-13	EAN code N(13)	8716868000091
EAN-18	EAN code N(18)	871718518003002673
MONTH	yyyymm	200203
MMCF <sup>3</sup>	N(1,5)	0,98213
ENERGY	N(12)	350000000
GAS PRICE	N(1,9)	0,123456789
AMOUNT OF MONEY	N(13,2)	-50,63; 52367,29
User category	AN(3)	G2A

N.B. N(a,b) means 'Number' with a maximum of 'a' places before the decimal point and a maximum of 'b' places after.

## 2.5. Return codes

The xxCONF messages are sent with a code stating how the sent message was received. The return codes which are used in the RNCONF and RSCONF can be found below.

Return code	Description
000	Correct
40G	Syntactical error
41G	Semantic error
44G	Unregistered party (i.e. party is known, but does not have a licence B)
45G	Unknown party identification (party is not known)
46G	Unknown location identification (network point or connection is unknown)
48G	Other error
50G	Message already accepted
52G	Message received after deadline
55G	Incorrect number of months in message
56G	Reconciliation value old does not match reconciliation value new in previous message (only in RNCONF)
57G	Delta reconciliation (energy) in RSINFO does not match summed values in RNINFO (only in RSCONF)
58G	Gas price for specific month does not match with previous message (only in RSCONF)
59G	Delta reconciliation (monetary value) is incorrect (only in RSCONF)
60G	Reconciliation old does not match reconciliation new (only in RNCONF)

Note: the 'yellow' codes are also used in the other messaging processes (allocation and OV exit).

<sup>3</sup> The MMCF will be set to one (1) as of 1-1-2015.

### 3. RECONCILIATION MESSAGES

Text in italics is to provide further information and is not shown in the message with regard to the messages defined below.

#### 3.1. RNINFO

This message is sent from LDC to the system operator, shipper and supplier.

The message is sent for each network point.

The message is sent once per month (no updates).

The message is sent every month for every network point.

The message contains all combinations of shipper/supplier/user category existing at the relevant network point. This means that the combinations that supply to the 'hourly measured' segment are also included in the reconciliation. This means that the volume effect of any measurement corrections to 'hourly measured' connections can be included more easily in the reconciliation process. The volume to be reconciled at a network point is therefore (with the exception of measurement corrections by GTS at the network point) the same as the sum of the hourly values and the rest energy of the MINFO message and the rest energy in the LDC BALL messages.

For new shipper/supplier/user category combinations at a network point, the reconciliation volumes (reconciliation old, reconciliation new) for the previous months (in which this combination was therefore not yet active at the network point) are set to zero. This arrangement means that the number of months to be reconciled per network point is the same for every combination of shipper/supplier/user category.

The same applies if shipper/supplier/user category combinations cease to exist at a network point.

The above also applies for a new user category or a user category that ceases to exist for a particular shipper/supplier combination; gaps are therefore filled up with 0 values in order to arrive at 17 months of data.

Reconciliation is only performed for a network point for a particular month if this network point exists (is active) during this month. No reconciliations are therefore performed for a new network point during the months before the date of creation of this network point (zero values are inserted into the message for these months) and where network points cease to apply, reconciliations are no longer performed for the months following the date of cessation (zero values are inserted into the message for these months).

Example: Suppose 2 network points were combined to make one new network point as at 1 January 2013:

- reconciliation data will appear in the reconciliation messages for the original 2 network points for the months up to and including December 2012; for the relevant months in 2013 zero values will be inserted for the monthly measurement correction factor and the reconciliation values.
- Reconciliation data will appear in the messages for the new network point for the months as from January 2013 onwards; the data for the months of 2012 will comprise zero values.

In general, gaps are filled with 0 values until a particular combination consists wholly (for 17 months) of 0 values. The combination in question may then cease to apply for the next message.

Depending on the addressee (GTS, shipper or supplier) the message covering the specified 17 months will contain the old reconciliation value, the new reconciliation value and the monthly measurement correction factor:

- to GTS:  
for all network points, all combinations of shipper/supplier/user category;
- to a shipper:  
for all network points relevant to the shipper, the combinations of shipper/supplier/user category relevant to the shipper;
- to a supplier:  
for all network points relevant to the supplier, the combinations of shipper/supplier/user category relevant to the supplier.

*Keyword*

From	EAN-13	<i>LDC</i>
To	EAN-13	<i>GTS, shipper or supplier</i>
Message-id	MESSAGE-ID	<i>Unique message identification. For format refer to the technical definitions</i>
Month	MONTH	<i>Reconciliation month. 201203 = reconciliation up to and including March 2012, i.e. message includes the month of March 2012 and the 16 preceding months</i>

Network point EAN-18

<i>Month</i>	<i>MMCF</i>	
201011	0,98274	
201012	0,98682	
		<i>17 months</i>
201201	1,01967	
201202	1,02549	
201203	0,99143	

*The information shown below follow per shipper/supplier combination:*

Shipper	EAN-13	<i>Shipper delivering to supplier at this specific network point.</i>
Supplier	EAN-13	<i>Supplier receiving from shipper at this specific network point.</i>
User category	AN-3	<sup>4</sup>

<i>Month</i>	<i>Reconciliation old (ENERGY)</i>	<i>Reconciliation new (ENERGY)</i>	
201011	1058700	1058600	
201012	1060800	1060600	
			<i>17 months</i>
201201	1048000	1049000	
201202	1065400	1064900	
201203	1040700	1040200	

All attributes are compulsory.

<sup>4</sup> Permitted values: G1A, G2A, G2C, GGV, GXX, GKV, GMN, GIN and GIS.

### 3.2. RNCONF

The message below is sent after receipt of the RNINFO message as confirmation that this message has been properly received and processed.

*Keyword*

From	EAN-13	<i>GTS, shipper or supplier</i>
To	EAN-13	<i>LDC</i>
Message-id RNINFO	MESSAGE ID	<i>Unique message identification</i>
Return code	RET-CODE	<i>See 2.5</i>

### 3.3. RSINFO

Message is sent by GTS to the shipper and contains the total of all reconciliation calculations, summed up by shipper. 17 reconciliation months are sent every month for every shipper as sum totals for all the network points at which the supplier(s) has (have) received from the shipper.

The message is sent once (no updates).

The volumes are converted by GTS at the prevailing market price and are given in both MJ and Euro.

*Keyword*

From	EAN-13	<i>GTS</i>
To	EAN-13	<i>Shipper</i>
Message-id	MESSAGE-ID	<i>Unique message identification</i>
Month	MONTH	<i>201203 = reconciliation up to and including March 2012, i.e. message includes the month of March 2012 and the 16 preceding months.</i>

<i>Month</i>	<i>Delta reconciliation (ENERGY)</i>	<i>Gas price (AMOUNT OF MONEY)</i>	<i>Delta reconciliation (AMOUNT OF MONEY)</i>	
201011	100201	0,123456739	12370,49	
201012	-57800	0,122222222	-7064,44	
201201	-10120	0,130012328	-1315,72	<i>17 months or less (see 1.2)</i>
201202	10102	0,149194549	1507,16	
201203	-723	0,132948637	-96,12	

### 3.4. RSCONF

The message below is sent after receipt of the RSINFO message as confirmation that this message has been properly received and processed.

*Keyword*

From	EAN-13	<i>Shipper</i>
To	EAN-13	<i>GTS</i>
Message-id RSINFO	MESSAGE-ID	<i>Unique message identification</i>
Return code	RET CODE	<i>See 2.5</i>