Edig@s 5.1 XML example messages as used by GTS
Including communication procedure

Nomination process
Program process
Imbalance Management process

gas transport services

N.V. Nederlandse Gasunie
Gasunie Transport Services

*A*uteur : AG
*V*ersion : 1.33
*S*tatus : Definitive
*D*ate : 25-06-2024

gas transport services

1. VERSION MANAGEMENT

1.1. Change history

Version	Date	Modification	Author
1.0	16-04-2015	Definitive	LGA
1.1	15-01-2018	Edig@s Example messages added	LGA
1.2	13-03-2018	Updated with GSTPTRADE information	LGA
1.2.1	28-08-2018	3.2.14 For TTF also type 55G will be accepted	LGA
1.2.2	30-12-2019	Changed ZSC into CT (contract reference) Updated NOMINT/NOMRES to v5.1 release 3	LAG
1.3	01-07-2020	Added 18G to NOMRES message on TTF	LAG
1.32	15-09-2023	Updated example CLRCON message	AG
1.33	25-06-2024	Removed codingScheme "321" as possible option	AG

C O N T E N T S

2. INTRODUCTION

2.1. Goal of the document

This document is a clarification of the use of Edig@s messages at GTS concerning the Nomination, Program and Balancing processes. A short functional description is given and in detail the content of the messages . These messages are exchanged between a Program Responsible Party (PRP) and the TSO (Transmission System Operator) Gasunie Transport Services (GTS) according to the GTS operating procedures.

For exchanging business messages (B2B) GTS will use Internet combined with AS4 protocol for the transfer and security of the EDIG@S messages. Interfaces like ISDN/FTP are not supported anymore. The AS4 communication uses a security certificate for signing and encryption. This type of certificate can be applied for at an official license office like EASEE-gas (www.easee-gas.eu). GTS recommends the use of SHA-2 certificates or higher.

Gasunie Transport Services makes use of the international standards which are promoted by EASEE-gas. For GTS the Message Implementation Guide (MIG) as issued by the Edig@s Working group is leading regarding the structure and codes used in the messages. The MIG is the basic principle of implementing these messages.

GTS preferable uses the highest Edig@s version XML format messages. The current highest version is 5.1 release 2. More information is published on the website http://www.edigas.org/.

Note: This document does not describe the messages for the Allocation process or website downloads (web services, web screens, etc.) or the messages exchanged with Neighbouring Network Operators,

For questions or remarks please contact: NominationSupport@gastransport.nl

2.2. Scope of this document

The messages in scope of this document are:

- Nomination Process Messages
  - Nomination (NOMINT)
  - Nomination Response (NOMRES)
- Program Process Messages
  - Program Document (PRODOC)
  - Program Confirmation Document (PROCON)
- Imbalance Management Process messages
  - Balancing Agreement Document (BALDOC)
  - Balancing Confirmation Document (BALCON)
- Acknowledgement message
  - Acknowledgement (ACKNOW)

In scope is also communication (means, certificates, checks etc.) with GTS for the above mentioned messages.

Not in scope

- POS, SBS and other downloads like downloadable measurements and allocations
- The non-automated information exchange.

- The detailed layout and definitions of web screens.
- The Public website or the Private website (Portal)
- EDSN web services XML
- The GTS XML web service

2.3. References

- Edig@s Message Implementation Guidelines
    - These can be downloaded from http://www.edigas.org
        - Under Downloads, this includes the XSD files and code lists

- Website Gasunie Transport Services:
    - English : http://www.gasunietransportservices.com
    - Dutch : http://www.gasunietransportservices.nl

2.4. Disclaimer

This document is being provided for information purposes only. Final versions and updates of this document will be published on the GTS website.

For questions and or remarks please contact: NominationSupport@gastransport.nl

3. OVERVIEW

GTS uses many types of services and messages and many systems to communicate and exchange information with Program Responsible parties. This document describes all messages where PRPs connect direct to the GTS Nomination and Program process handling system (Nimbus-T).

This document contains per process the functional description and in details the content of the messages concerning the Nomination process and Program and Balancing processes for the new market and balancing model. These messages are exchanged between a Program Responsible Party and the TSO Gasunie Transport Services (GTS) according to the GTS operating procedures.

This document does not describe other information exchanges with GTS like the Allocation process messages, XML downloads or the GTS website or portal.

In principle building of messages and adapting systems can be done based on the available Edig@s message specifications. The XSD's and DPM's should provide sufficient information and constraints. Because examples can be helpful in understanding the message specifications this document will provide examples for all relevant messages.

At the end of this document the communications (means, certificates, checks etc.) with GTS for these messages are described.

The processes and XML messages in scope of this document are:

Nomination process	Message	Contents	Communication
Nomination	NOMINT	Current/Day ahead and future nominations	Edig@s V5.1R2 XML
Confirmation	NOMRES	Response on Nomination message by GTS	Edig@s V5.1R3 XML
Acknowledgement	ACKNOW	Acknowledgement	Edig@s V5.1R2 XML

Program process	Message	Contents	Communication
Program	PRODOC	Day ahead prognoses	Edig@s V5.1R2 XML
Confirmation Program	PROCON	Response on Program message by GTS	Edig@s V5.1R2 XML
Acknowledgement	ACKNOW	Acknowledgement	Edig@s V5.1R2 XML

Within Day Market process	Message	Contents	Communication
Activation for Emergency means	BIDACT	In case of emergency: Call of GTS to use Offer(s) to correct a imbalance in the network, with Quantity and Price	Edig@s V5.1R2 XML
Clearing Confirmation	CLRCON	Confirmation with quantity and Price to Causers (and in case of emergency suppliers)	Edig@s V5.1R2 XML
Acknowledgement	ACKNOW	Acknowledgement	Edig@s V5.1R2 XML

Imbalance Management process	Message	Contents	Communication
Balancing Agreement	BALDOC	Message of an agreed balancing agreement, sent in by both parties in the balancing relation.	Edig@s V5.1R2 XML
Balancing Confirmation	BALCON	Confirmation of a Balance Agreement sent to party in the balancing relation.	Edig@s V5.1R2 XML
Acknowledgement	ACKNOW	Acknowledgement	Edig@s V5.1R2 XML

The Balancing Anomaly message (BALANO) is not used by GTS.

3.1. General Message information

3.1.1. Edig@s version selection

Gasunie Transport Services uses the international standards which are promoted by EASEE-gas. For GTS the Message Implementation Guide (MIG) as issued by the Edig@s Working group is leading regarding the structure and codes used in the messages. The MIG is the basic principle of implementing these messages.

GTS preferable uses the highest Edig@s version and only in XML format.
Edig@s MIG (including XSD's) and Code lists available on http://www.edigas.org/ under the menu item 'Downloads'.

C*ONTRL messages* cannot be used in XML *and* has been incorporated into the *ACKNOW message*.

3.1.2. Message status and completeness

A new received message will always completely replace a previous received message. The message version has to be higher than the last received version to be accepted as a message update.

A received message always has to contain all hours of the gas day. This means for the Current gas day also the already passed hours (before the deadline). GTS will however only process the values after the deadline.

3.1.3. Periods

GTS needs per message always at least one full nomination day (gas day). More full gas days in a message are sometimes allowed.

NOMINT - period nomination for more gas days allowed
BALDOC - period nomination for more gas days allowed
PRODOC - period always one gas day

Where an amount (energy and or price) is given for a certain period, a period of a complete gas day is included in the message. For the hours where no amount is needed, a zero amount is given.

Note: GTS accepts only messages with full gas days!

3.1.4. Daylight saving time

A gas day is in LET and because of that has daylight saving periods. This means one gas day with 23 hour and one gas day with 25 hours each year. All other gas days have 24 hours. In LET the

gas day will stay from 06:00 to 06:00. In the Edig@s messages the time will change between 04:00 and 05:00 hours UTC.

Examples:

gas day (LET)	Edig@s messages (UTC)	Remarks
06:00 – 06:00	05:00 – 05:00	During the winter (24 hour gas day)
06:00 – 06:00	05:00 – 04:00	During change winter to summer (23 hour gas day)
06:00 – 06:00	04:00 – 04:00	During the summer (24 hour gas day)
06:00 – 06:00	04:00 – 05:00	During change to summer to winter (25 hour gas day)

3.1.5. Times in messages

All times in the messages are formatted in UTC which is mandatory. See Edig@s Intro MIG.

3.1.6. Coding Schemes

Coding schemes are used in the Edig@s messages and have the following meaning:
codingScheme="305" - code is an EIC code (mandatory length 16 characters)
codingScheme="ZSO" - code issued by the System Operator (GTS)

In the codelists the accepted values for code 305 can be found.
ZSO codes are proprietary codes issued by the TSO for its own grid.

3.1.7. Acknowledgement Edig@s messages sent by the PRP (received by GTS)

Edig@s confirmation messages send by GTS are not acknowledged by the recipient (PRP). The reason for this is that the PRP already is aware of the fact that a confirmation will be send by GTS. When a problem in receiving the confirmation message occurs, the PRP is responsible for taking action.

3.1.8. Acknowledgement Edig@s messages sent by GTS (received by PRP)

GTS can sent different types of Acknowledgements. The preferred way is to use the message ACKNOW. GTS also has the possibility to send back an e-mail. This however is not preferred and only when requested by the PRP.

- Received NOMINT by GTS: Optional - GTS sends ACKNOW or E-mail or both.
- Received BALDOC by GTS: Optional - GTS sends ACKNOW or E-mail or both.
- Received PRODOC by GTS: Optional - GTS sends ACKNOW or E-mail or both.

When a PRP does not want to receive an acknowledgement message in the form of an Edig@s message the PRP is fully responsible for any consequence when messages are not or partly accepted by GTS. Also during the gas day GTS can send updated acknowledgement messages when for instance message statuses are being updated. E-mail is not a substitute for Edig@s acknowledgement messages.

3.1.9. Decimal mark

Edig@s uses as decimal mark the point (“.”). See MIG General Guidelines.

3.1.10. Quotes around values

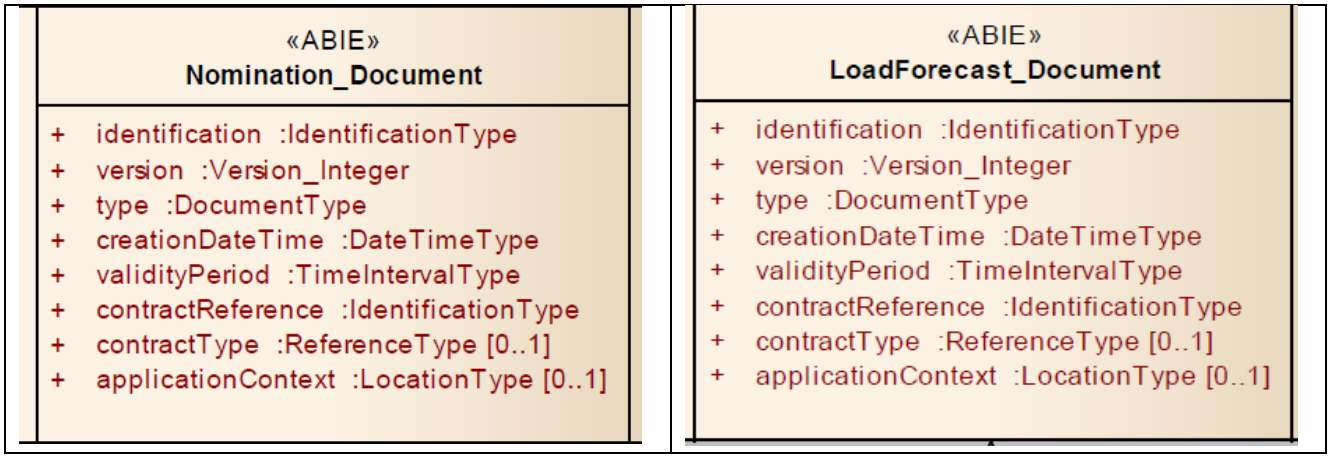
GTS uses double quotes around values in the messages and follows the examples from the Edig@s workgroup. Messages with single quotes will be declined by GTS.

Examples:

<SendingDocumentIdentification v="BALDOC20150308A00001"/>
<SendingDocumentVersion v="1"/>

3.2. Generic Message header information

Example headers (NOMINT and PRODOC):



3.2.1. Message Identification

There are two possible types of identification:

Type 1:

- **Nomination messages**
  - Messages: NOMINT – NOMRES
- **Program Messages**
  - Messages: PRODOC – PROCON
- **Imbalance Management messages**
  - Messages: BALDOC – BALCON

Example:

<Identification v="PRODOC20150401A00001"/>
<Version v="001"/>

An Edig@s document is unique for each combination of Issuer, Message Identification and Version per network point. If a document has more than one document type, the Message Identification must be unique over all types. This means that an exit program document and an entry program document must have an Message Identification that is unique for both documents. The Identification should not change once it has been submitted.

A message update has a new version number (+1) but uses the same (already generated) Message Identification.

When a lower version number is received (for the above mentioned combination) then the message will not be processed and an ACKNOW message with the appropriate code will be sent by GTS as a reaction.

Example IdentificationsGSPRP1:

Initial programs:

	Entry Program:	PRODOC20150401A00001	Version: 1
	Exit Program:	PRODOC20150401A00002	Version: 1
Update	Entry Program	PRODOC20150401A00001	Version: 2

Example messages for a party for a certain gas day and next gas day

A party with physical entry- and exit capacity has to send in 2 programs (Entry and Exit). The Identification for both programs will differ. The version for the first send in message for the gas day will be 1

Entry Program

<Identification v="PRODOC201504**01**A00001**1**"/>
<Version v="**1**"/>

Exit Program

<Identification v="PRODOC201504**01**A00002**2**"/>
<Version v="**1**"/>

When the party sends an updated Exit program the Identification will not change but the Version will have a higher (+1) number).

Exit Program

<Identification v="PRODOC201504**01**A00002**2**"/>
<Version v="**2**"/>

A first message for the next gas day will have Version 1 again (and date of next gas day).

Entry Program

<Identification v="PRODOC201504**02**A00001**1**"/>
<Version v="**1**"/>

Date in Identification

GTS proposes to use the date of the gas day the message is for as date in the program identification.

Example:

Today: 2015-03-31
Program Identification for Next has date 2015-04-01
Example Identification: PRODOC**20150401**A00001

Type 2:

- **Acknowledgements Message**
  - Messages: ACKNOW

Example:

<Identification v="ACKNOW20150401A00001"/>

An Edig@s Acknowledgement document does have a Version itself and has a reference to a message in the body. The sender must guarantee that this identification is unique over time.

Example:

Today: 2015-03-31
ACKNOW message as a reply on a received NOMINT message (for gas day Current or Next)
Example Identification: ACKNOW**20150331**A00001

3.2.2. XML Namespaces

Edig@s messages do not use namespace information in the message. So information like xmlsns:ns0-"code-lists.xsd" xmls:ccc-"core-cmpts.xsd" is not allowed in the messages and will be refused.

3.2.3. Time message created

The date and time in UTC the message was created.

Example: <CreationDateTime v="2015-04-07T11:52:00Z"/>

3.2.4. Period the message is valid for

The period in UTC the message is valid for.

Example: <validityPeriod>2015-10-10T04:00Z/2015-10-11T04:00Z</validityPeriod>

3.2.5. Issuer- and Recipient Identification

It is mandatory to use EIC in the Issuer- and Recipient Identification segments of the message. In the case a Service Company is doing the message handling the codes from the PRP are being used. In the examples the codes used are CCP and PRP. The code **21X-NL-A-A0A0A-Z** is the official EIC used by the GTS nomination handling system. Accepted coding schemes for Party Identification is 305.

Tags	GTS is sending message	GTS is receiving message
IssuerIdentification	CCP for TSO GTS	PRP for the program responsible party
RecipientIdentification	PRP for the program responsible party	CCP for TSO GTS

Example:
<issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
<recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>

In the examples the code **PRP** is used for the counterparty from GTS (CCP).

Information on (and application for) EIC codes, please visit: https://www.entsoe.eu

3.2.6. Roles

This is the identification of the role of the party who has initiated the message (IssuerRole) or will receive the message (RecipientRole). There are different possible types per message.

Example:

<issuer_MarketParticipant.marketRole.code>ZTY</issuer_MarketParticipant.marketRole.code>
<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>

3.2.7. Contract reference

Each program responsible party receives from GTS a contract reference code which has to be used as account identification in the Edig@s message. In the examples this code is GSPRP.
The Contract Type identifies the type of the contract reference identified in the Contract Reference attribute. Normally GTS uses the code "CT"

Example:

<contractReference>GSPRP</contractReference>
<contractType>CT</contractType>

3.2.8. Network point identifiers

In Edig@s messages the connection point identifier can be set up using:

- Network point identifier supplied by GTS
  - These codes can be found on the GTS website.
- Identifier using the Energy Identification Code (EIC code)
  - This EIC code is a string of 16 characters. Example: 21Z000000000170U
  - More information about EIC can be found on https://www.entsoe.eu

With new partners GTS prefers to start with party EIC codes.
In the near future GTS will move the network point identifier with current partners to EIC codes as Location Identifier.

Note. GTS allows only one network point per message!

Note. When EIC codes are used in a message, all network point segments in the message have to use EIC codes without exception.

Example: <VirtualPoint codingScheme="ZSO" v="VPPV"/>
<VirtualPoint codingScheme="305" v="21Z000000000170U"/>

3.2.9. Energy amounts (quantities)

The standard (and sole) unit for exchanging Energy data is kWh/h for energy quantities per hour. (e.g. Program - 6:00-8:00 500 kWh/h, this is a flow of 500 for each hour.
This means that GTS only accepts quantities in kWh/h (Code: KW1) where amounts are noted in 0 decimals, e.g. 1200 kWh/h.

For balancing agreements (NOMINT type 55G) also percentages are accepted using code P1.

Example: <MeasureUnit v="KW1"/> <MeasureUnit v="P1"/>

3.2.10. Prices

Prices are noted in 6 decimals (e.g. € 0,101234) and in Euro (Code: EUR).

Example: <Price v="44.501234"/>

3.2.11. Qualifiers and quantities

The qualifiers Z02 and Z03 have been introduced and are mandatory to be used in the messages.

When using these qualifiers the quantities must always have a positive value. When however negative quantities are received the sign will be ignored (which means a flow direction change!).
The qualifiers used by GTS are:

Entry = Z02 Example: <Direction v="Z02"/>
Exit = Z03 Example: <Direction v="Z03"/>

The codes Z02 and Z03 used are from a GTS perspective!

The qualifiers used by GTS for trades (on TTF) are:

Buy = Z02 Example: <Direction v="Z02"/>
Sell = Z03 Example: <Direction v="Z03"/>

On TTF the perspective is in or out the own portfolio used.

3.2.12. Nomination Type

Double sided (type A02)
The nominations as they are used in Edig@s 4 are of type double sided nomination. This means there is a nomination needed for both sides of the interconnection point.

Single sided (type A01)
As per november 1st, 2015 GTS is offering the Single Sided Nomination (SSN) mechanism as part of CAM/CMP networkcodes. With SSN, shippers can use capacity on an Interconnection Point with one nomination.
On the GTS website you will find a list of the IP's of GTS where SSN will be offered and the role of GTS (active/passive). http://www.gasunietransportservices.nl

3.2.13. Counterparties on messages

Counterparties on nomination messages received may not be removed from the message if the deadline is on the Current gas day. This means that parties may not be removed once added in this period. Putting the quantity to 0 will make the party inactive for the period accepted after the deadline.

Market Operator specific
It is not allowed to nominate against a Market Operator on a Nomination message. If this is done GTS will remove these lines from the message. All parties mentioned on nominations received from a Market Operator will be added to the nomination message from those parties involved (and updated once added when needed).

3.2.14. Type

GTS accepts for all NOMINT messages type <01G>.

Example: <Type v="**01G**" />

NOMINT	01G = Nomination (including TTF) 55G = Exchange nomination (TTF only)
NOMRES	08G = NOMRES / NOMRES-C (standard confirmation message)

NB. Connection point TTFB needs the Imbalance (BALDOC-BALCON) messages.

3.2.15. Account identification

The account identification is used to mention the counter parties in the **detail** part of the message (GSPRP1, GSPRP2 and GSPRP3 in the examples). These codes are issued by GTS or adjacent TSOs from GTS (on interconnection points).

As of Edig@s 5.1 release 2 GTS only accepts messages with double account identification (internalAccount and externalAccount). Also outgoing messages will have double account identification.

The internalAccount is the internal Program Responsible Party account at GTS.
In XML the externalAccount is the external party account in the message.

Example double account identification:

```
<internalAccount codingScheme="ZSO">GSSHIP1</internalAccount>
<externalAccount codingScheme="ZSO">EXSHIP1</externalAccount>
```

3.2.16. Quantity Status

The NOMRES message has the possibility to give status information for the confirmed quantity. Currently only one of the following status values are permitted:

06G = Mismatch.
07G = Interrupted.
08G = Interrupted firm.
09G = Quality deficient.
10G = Reduced capacity.
11G = Below 100%.
12G = Settled.
13G = Unchanged settled.
14G = No counter nomination.
35G = Counter Party Prevailed.
36G = No Match counter party prevailed.
37G = Reduced Nominated Quantity.

Example:

```
<Status>
    <QuantityStatus v="06G"/>
 </Status>
```

4. NOMINATION PROCESS

4.1. Process Information

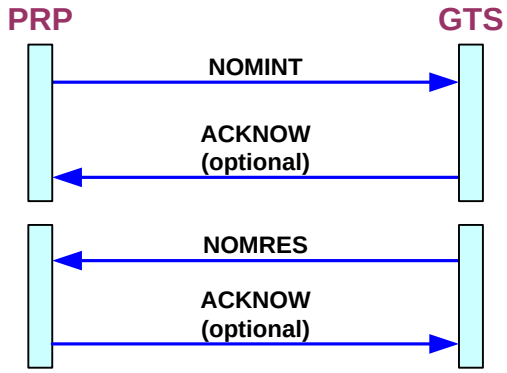
4.1.1. Nomination process overview

The following processes produce or process external information flows for the nomination process.

Process step	Information flow	From → To
Submit nomination	Nomination (NOMINT)	PRP → GTS
Validate internal consistency	Acknowledgement (ACKNOW message) with feedback on acceptance of the message.	GTS → PRP
Confirm nomination	Confirmation (NOMRES)	GTS → PRP

The Program Responsible Party (PRP) sends the Nomination (D-1) which is directly validated on internal consistency. GTS will acknowledge (positive or negative) the nomination when received. After Matching the PRP will receive a confirmation.

4.1.2. Nomination process messages



4.1.3. Nomination message information (NOMINT)

Requested transport quantities by the Program Responsible Party for a specific connection point for a gas day or the quantity to transfer to another PRP (on TTF).

Purpose

It gives GTS information on the expected transport for the next gas day and when a party renominates changes for the current gas day.

Trigger

A Program Responsible Party will send a Nomination for each connection point and gas day where this is contractual required.

Design decisions

1. The processing is connection point role dependant.

   - Role connection point – End User point

   Confirmation is equal to the nomination when no constraint is applied or Reduced in the case of 'Direct Aangeslotenen'. In the message only one counter party named END USER is possible. The Business Rule is Lesser Rule.

- Internal Matching
  This is where matching is between two GTS parties on an internal network point in the GTS grid. Matching is done and when needed the Lesser Rule is applied.

- External Matching with System operator
  This is where matching is on a connection point between two grids (two System Operators). Specific messages between System Operators are used to handle this situation. Matching is done and when needed matching rules are applied. Lesser Rule is mostly used; also possible is Producer Prevail or No Match. Constraint handling is possible.

- Hub - Title Transfer Facility (TTF)
  On TTF Title Transfer is done between GTS parties. The Lesser Rule is applied when there is no settled deal. Once both parties have nominated the same amount the deal is settled and can only be changed when both parties change the amount and the new amount is the same again. Status changes will be sent in the confirmation message and/or per e-mail.

- Title Transfer Facility – Balancing (TTFB)
  On TTFB parties inform GTS of a balancing deal between these parties. On basis of the balancing agreement information, GTS will be able to take the balancing agreement into account in the allocation process. The message will be a unique balancing agreement message and will use the same protocol as the nomination messages. Matching will be applied to the balancing messages. Also percentages are allowed in the message.

2. A nomination contains all information for one party (Contract Reference) for a connection point. A renomination contains a complete gas day including values from the past hours on the Current gas day. The system will process the message using the lead time for the network point.

3. A nomination must contain at least one full gas day.

4. Optionally a nomination will be acknowledged.

5. When no nomination has been sent and this was required a PRP will receive a zero confirmation for this connection point with UNKNOWN as counterparty.

6. Parties may not be removed from a renomination for the current gas day. When a mistake is made please make the quantity zero. When a party deletes a party from a nomination GTS will put it back with zero quantities and the lead item taken into account.

7. Depending on the network point a lead time will be taken into account during validation and matching of the message.

Content

The primary attributes of the nomination are:

Attribute	Definition	Domain	Example	M
Identification + version	Identification of the Program for each PRP for each gas day.	Identification of the nomination for each PRP for each gas day.	NOMINT20150310A00001	Y
ValidityPeriod	The gas day(s) for which the nomination is valid. (UTC)	One or more whole gas days	2009-01-27T05:00Z/2009-01-28T05:00Z	Y
contractReference	Id of the portfolio for the nomination. A PRP can have more than one portfolio.	Portfolio code issued by GTS	GSPRP	Y

Attribute	Definition	Domain	Example	M
ConnectionPoint	The Connection point that is used. The codes to use are published on the GTS website.	Issued by GTS	TTF, ZELZA1, or EIC code 21Z000000000170U	Y
NominationType	To indicate if the nomination is double or single sided	Double sided = A02 Single sided = A01	<NominationType> <type>A02</type>	Y
TimeInterval	Whole hour(s) within the Gas day for which the information is valid. (UTC)	Hours within gas day	2009-01-27T05:00Z/2009-01-28T05:00Z	Y
externalAccount	Identification of the Portfolio (ContractCode) of the PRP counter party. Connection point role dependant.	A portfolio code issued by GTS	GSPRP1 END USER	Y
quantity.amount	Total energy in kWh per hour of the nomination in the Validity Period and for the Counter Portfolio. Code: KW1	Positive value. No decimals allowed	40000	Y
direction.code	The direction of the quantity. Input = Entry = Z02 Output = Exit = Z03	Z02-Entry Z03-Exit	Z02	Y

An acknowledgement contains specific information for the confirmation using codelists codes.

Some example situations:

- Unregistered party
- Unknown location identification
- Incomplete period
- Incomplete period
- Unknown party identification
- Unknown location identification
- Unregistered party
- Etc.

4.1.4. Nomination Response message information (NOMRES)

Confirmation from GTS to the PRP with information after the sent nomination by the PRP has been processed. This confirmation contains also information about the possible errors (optional).

Purpose

Gives the PRP information as a response to the processed nomination. The PRP could issue an adapted nomination as a result of this.

Trigger

The receipt of a nomination triggers the process and results in a confirmation message.

Design decisions

1. Acknowledgement

A confirmation will *not* be acknowledged by the PRP. The PRP needs to take action themselves when no confirmation is received (in time).

Content

The confirmation is very much like the nomination itself with the exception that the Quantity can be different to the nomination due to matching errors. Optionally the error codes itself are added.

Attribute	Definition	Domain	Example	M
Identification	Identification of the confirmation. Consists of a number to be defined by GTS.		NOMRES20151218A12345	Y

Attribute	Definition	Domain	Example	M
	An updated confirmation gets a new number.			
ValitityPeriod	The gas day in which the confirmation is valid.	One gas day	2009-01-27T05:00Z/2009-01-28T05:00Z	Y
Portfolio (in Edig@s: Contract Reference)	Id of the portfolio (ContractCode) where the Transport Program is placed in. A PRP can have more than one portfolio.	Portfolio code issued by GTS	GSPRP	Y
Connection point	The Connection point that is used and is equal to the corresponding nomination.	Issued by GTS	TTF, ZELZA1, or EIC code 21Z000000000170U	Y
NominationType	To indicate if the nomination is double or single sided	Double sided = A02 Single sided = A01	<NominationType> <type>A02</type>	Y
Time interval	Whole hour(s) within the Gas day for which the information is valid.	Hours within gas day	2009-01-27T05:00Z/2009-01-28T05:00Z	Y
Counter Portfolio (in Edig@s : Account type)	Identification of the Portfolio (ContractCode) of the PRP counter party. Connection point role dependant.	A portfolio code issued by GTS	GSPRP1 END USER	Y
quantity.amount	Total energy in kWh per hour of the confirmation in the Validity Period and for the Counter Portfolio	Positive value. No decimals allowed	40000	Y
Direction	The direction of the quantity. Input = Entry = Z02 Output = Exit = Z03	Z02-Entry Z03-Exit	Z02	Y
Quantity Status	The status of given quantity within a time interval.	Restricted code list	06G	Y

4.1.5. Status codes used in confirmation messages

Status values are used to provide the business rule qualification and have the following meaning.

NOMRES-C This message is sent by a TSO to the Program Responsible Party, at the latest before 18:00 and whenever needed thereafter, and contains only the **confirmed** quantities scheduled to be flown for the concerned gas day (Status value: 16G).

4.1.5.1. Functional Examples Nomination messages

The examples are only for illustration purposes and serve to illustrate the messages.
The examples should not be seen as or be used as a message specification.

The example messages for the nomination process uses the functional example below where the Program Responsible Party GSPRP [1] has contracts with GTS to transport gas via network point BORDER [2]. The counterparties are GSPRP1, GSPRP2 etc.

The following assumptions have been made:

[1] In this example GSPRP is the Edig@s sender and account identification. These codes are not official codes; see the Edig@s website for the official codes.
[2] In messages the used Edig@s networkpoint name is normally an abbreviation of the networkpoint name. In the examples BORDER is used as the Edig@s name as example code for a border connection point.

- The gas flow is constant over the complete nomination validity period.
- The nomination period is 1 nomination day (06:00-06:00 LET)
- Matching does not give any reason to change the original values of the nominations.
- This example contains a qualifier for receiving/delivering quantities

Timing of messages
The timing of the messages depends on:
- who starts the process
- lead-time on the connection point

Next gas day process
The figures 1a and 1b below are the message for the Next gas day process before 18:00 LET.

Next and Current gas day processes
After 18:00 LET GTS runs the renomination process both for the Next and for the Current gas day. At GTS there are several lead-time possibilities. Examples for the renomination process and different lead times are shown in figures 2a, 2b, 3, 4 and 5).

4.1.6. Nomination Messages

Nomination Messages used

NOMINT	From Shipper to GTS	Nomination message for a gas day and connection point. A second NOMINT message for the same gas day and connection point is called a Renomination.
NOMRES	From GTS to shipper	On this message contains only the Confirmed quantities for the shipper scheduled to be flown for the concerned gas day (Status value: 16G) after matching and applying business rules between the System Operators based on the DELORD and DELRES messages. This message contains: - the **confirmed** quantities (Status value: 16G)

Status values are used to provide the business rule qualification and have the following meaning.

14G	Processed by TSO (not used in confirmation messages)
15G	Processed by adjacent TSO
16G	Confirmed
18G	The original counterpart Balance Responsible Party nomination that was submitted to the neighboring System Operator.

Note: Only at interconnection points the confirmation messages can have additional Status values. At end-user points only confirmed quantity information (16G) is given.
On TTF also 18G when available.

Note: At virtual network points, it is compulsory in Edig@s version 5.1 to include the (original) nomination of the counterparty in the confirmation (NOMRES) messages, alongside the actual confirmation. For Edig@s version 5.1, the flow direction of nominations of the counterparty is the same as the flow direction of the shipper's confirmation both for entry (Z02) and exit (Z03). The figure below shows an example of the current, version 5.1, TTF Edig@s message into which the 18G feature has been incorporated.

Edig@s version 5.1

Nominated bij Shipper GSxx on TTF

Shipper	Counter shipper	Value	Direction	Remarks
GSxx	GSyy	100	Z02	Entry nomination

Confimated to Shipper GSxx on TTF by GTS

Shipper	Counter shipper	Value	Direction	Type	Remarks
GSxx	GSyy	100	Z02	16G	Confirmed
GSxx	GSyy	150	Z02	18G	Nominated by counter shipper

Nominated bij Shipper GSyy on TTF

Shipper	Counter shipper	Value	Direction	Remarks
GSyy	GSxx	150	Z03	Exit nomination

Confimated to Shipper GSxx on TTF by GTS

Shipper	Counter shipper	Value	Direction	Type	Remarks
GSyy	GSxx	100	Z03	16G	Confirmed
GSyy	GSxx	100	Z03	18G	Nominated by counter shipper

4.1.7. Timing of messages double sided nomination

The timing of nomination process messages between Program Responsible Parties (and System Operators) is shown in the diagrams below.

To be complete also the messages between GTS, System Operators and the shippers are shown.

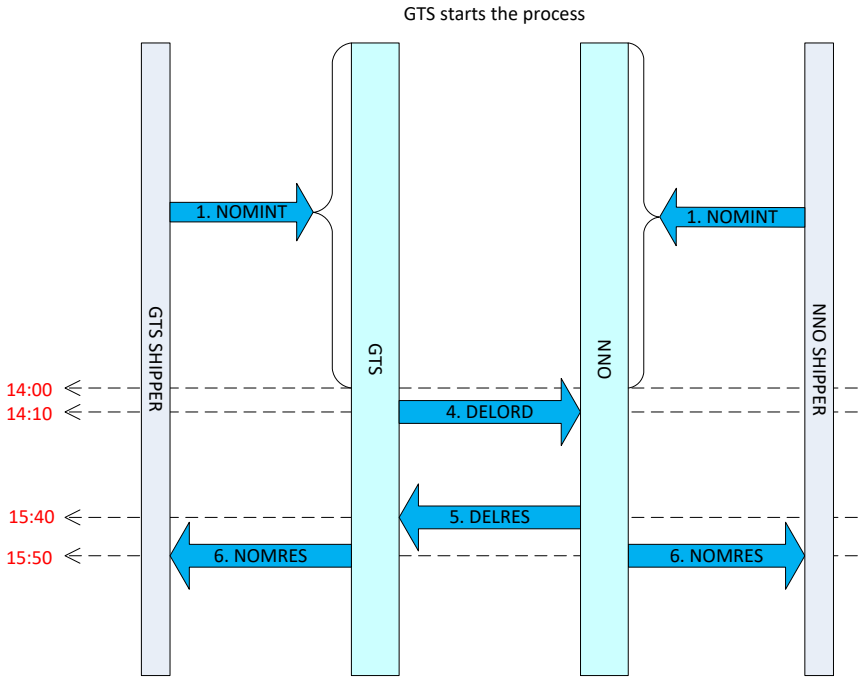


Figure 1a: Initial Nomination Scheme – GTS starts process

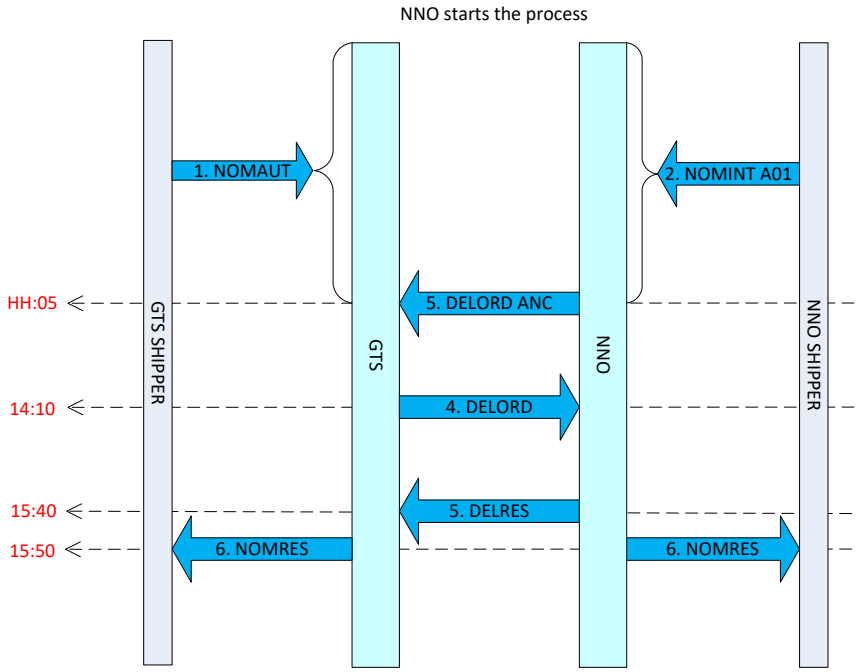


Figure 1b: Initial Nomination Scheme – System Operator starts process

4.1.8. Timing of messages single sided nomination

The timing of single sided nomination process messages between Program Responsible Parties (and System Operators) is the same as the double sided nominations timing.
For the single sided nomination process, one extra message is needed from the passive shipper, Nomination Authorization (NOMAUT). And also an extra message (DELORD ANC) is exchanged between TSO's.
To setup the data for the SSN process, a NOMAUT message has to be send by the passive shipper with per network point with the counterparties concerned. Only when there are changes in the counterparties per network point a new NOMAUT message has to be send by the passive shipper. A new NOMAUT message will completely replace an existing NOMAUT message, therefore it should contain also the unchanged authorizations.

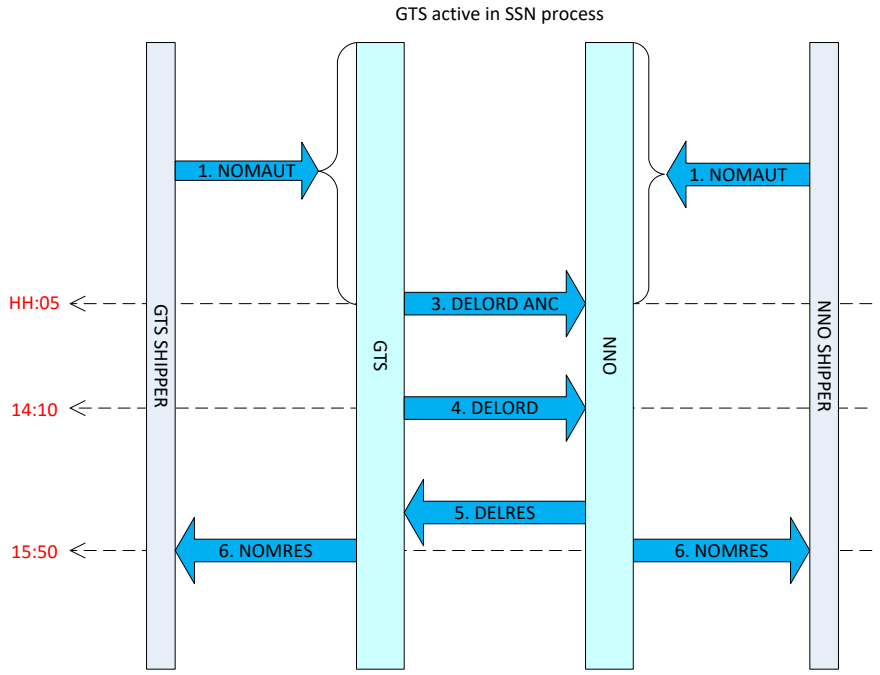


Figure 1a: Initial single sided Nomination Scheme – GTS is active TSO

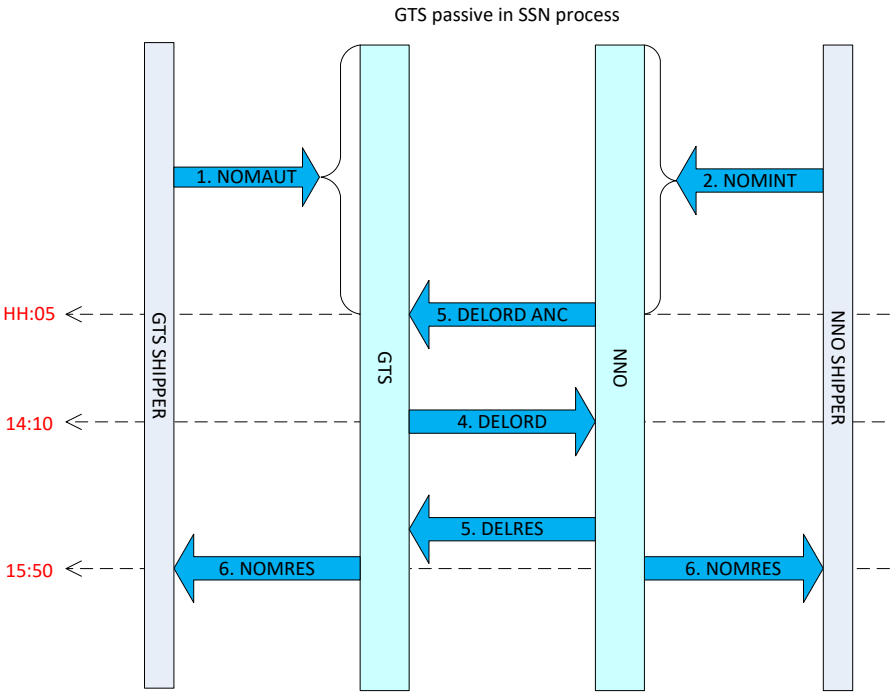


Figure 1b: Initial single sided Nomination Scheme – GTS is passive TSO and can receive the NOMAUT

4.1.9. Renomination process messages with lead time of 30 minutes

Below the timing with lead times of 30 minutes

- for the first half and second half of the hour;
- when GTS starts or the System Operator starts the process;

In all examples GTS starts the process with a DELORD message. The DELRES will be of the type DELRES.

GTS starts – first half hour processing

In the case GTS starts with sending the DELORD message based on an incoming nomination. All shipper pairs from the highest version accepted nominations will be placed on the DELORD message just after the hour hh:00 (around hh:05) and a DELRES message (agreed type) is expected before hh:30 so a confirmation message can be sent before hh:30 to the shipper.

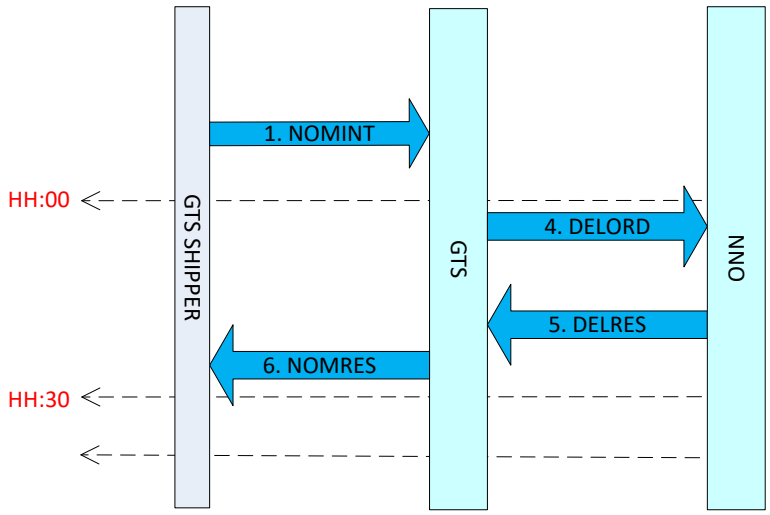


Figure 2a : Renomination Scheme (30 minutes lead time)

From hh:00 up till hh:30 the DELORD-DELRES-NOMRES messages in first half hour of the hour

GTS starts – second half hour processing

In the case GTS starts with sending the DELORD message based on an incoming nomination. On the DELORD message all shipper pairs from the highest version accepted nominations will be placed on the DELORD message just after the hour + 30 minutes hh:30 (around hh:35) and a DELRES message (agreed type) is expected well before hh+1:00 so a confirmation message can be sent before hh+1:00 to the shipper.

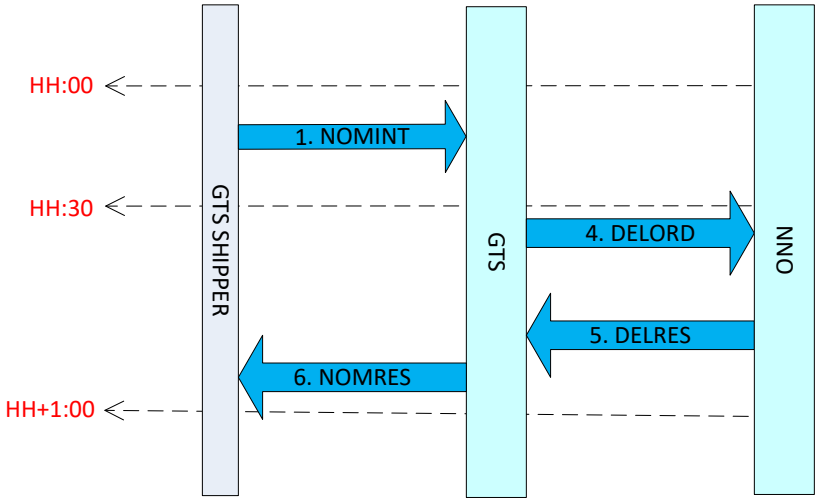


Figure 2b : Renomination Scheme (30 minutes lead time – second half hour)

System Operator starts – first half hour processing

In the case the System Operator starts with sending the DELORD message based on an incoming nomination. Expected on the DELORD message are all shipper pairs from the highest version accepted nominations at the System Operator received just after the hour + 00 minutes hh:00

(around hh:05). GTS will generate a DELRES message (agreed type) based on the incoming DELORD message which will contain as a minimum all shipper pairs on the received DELORD message. GTS will add shipper pairs when applicable. GTS will send this message a maximum of 10-15 minutes after receiving the DELORD message. This all well before hh:30 so a confirmation message can be sent before hh:30.

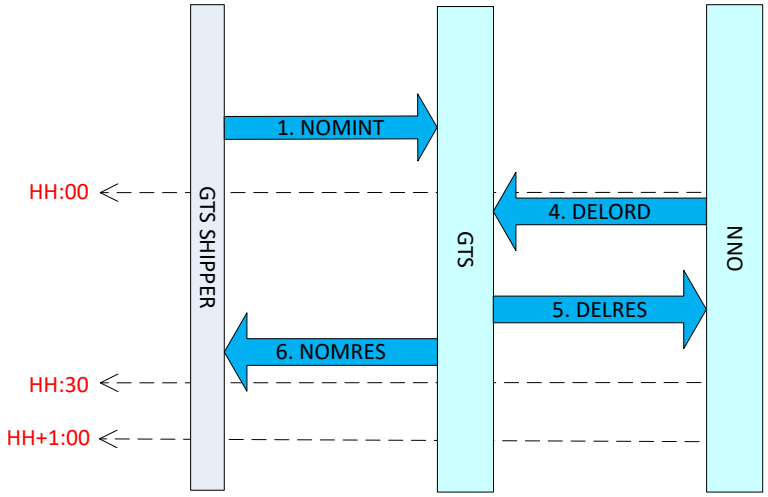


Figure 3 : Renomination Scheme (30 minutes lead time)

System Operator starts – second half hour processing

In the case the System Operator starts with sending the DELORD message based on an incoming nomination. Expected on the DELORD message are all shipper pairs from the highest version accepted nominations at the System Operator received just after the hour + 30 minutes hh:30 (around hh:35). GTS will generate a DELRES message (agreed type) based on the incoming DELORD message which will contain as a minimum all shipper pairs on the received DELORD message. GTS will add shipper pairs when applicable. GTS will send this message a maximum of 10-15 minutes after receiving the DELORD message. This all well before hh+1:00 so a confirmation message can be sent well before hh+1:00.

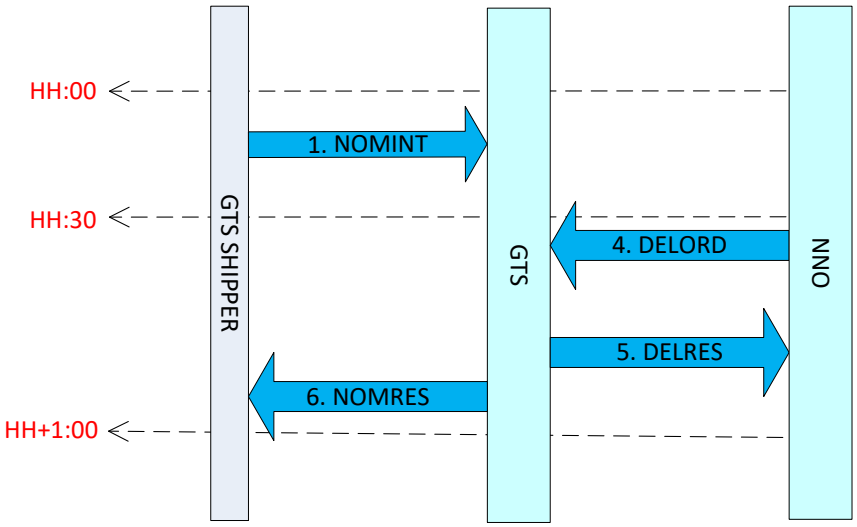


Figure 4 : Renomination Scheme (30 minutes lead time)

4.1.10. Renomination process messages with lead time of 120 minutes

Below the timing with lead times of 120 minutes.

GTS starts the process

In the case GTS starts with sending the DELORD message based on an incoming nomination. On the DELORD message all shipper pairs from the highest version accepted nominations will be placed on the DELORD message just after the hour hh:00 (around hh:05) and a DELRES message (agreed type) is expected well before hh+1:00 so a confirmation message can be sent before hh+1:00 to the shipper.

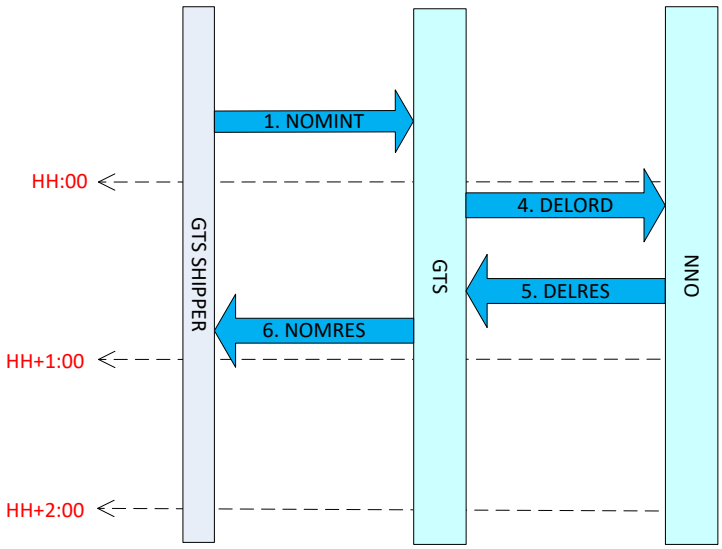


Figure 5 : Renomination Scheme (120 minutes lead time)

System Operator starts the process

In the case the System Operator starts with sending the DELORD message based on an incoming nomination. Expected on the DELORD message are all shipper pairs from the highest version accepted nominations at the System Operator received just after the hour + 00 minutes hh:00 (around hh:05). GTS will generate a DELRES message (agreed type) based on the incoming DELORD message which will contain as a minimum all shipper pairs on the received DELORD message. GTS will add shipper pairs when applicable. GTS will send this message a maximum of 10-15 minutes after receiving the DELORD message. This all well before hh+1:00 so a confirmation message can be sent before hh+1:00.

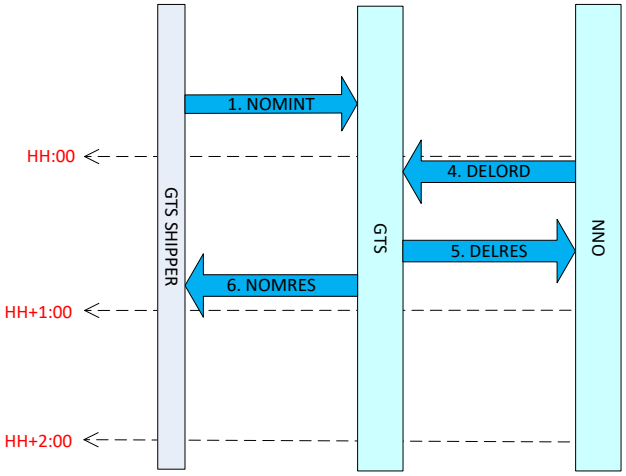


Figure 5 : Renomination Scheme (120 minutes lead time)

4.2. Example Messages

4.2.1. Example NOMINT Edig@s V5.1 – Nomination

Edig@s version 5.1 nomination message (type: NOMINT) in XML format from GSPRP to GTS based on the functional example. This is an example for network point TTF.

```
<?xml version="1.0" encoding="UTF-8"?>
<Nomination_Document release="3" xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationdocument:5:1">
        <identification>NOMINT20151218A00001</identification>
        <version>1</version>
        <type>01G</type>
        <creationDateTime>2015-12-18T09:30:47Z</creationDateTime>
        <validityPeriod>2015-12-19T05:00Z/2015-12-20T05:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSY</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
        <ConnectionPoint>
                <identification codingScheme="ZSO">TTF</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <NominationType>
                        <type>A02</type>
                        <Account>
                                <internalAccount codingScheme="ZSO">GSPRP</internalAccount>
                                <externalAccount codingScheme="ZSO">GSPRP1</externalAccount>
                                <Period>
                                        <timeInterval>2015-12-19T05:00Z/2015-12-20T05:00Z</timeInterval>
                                        <direction.code>Z03</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                </Period>
                        </Account>
                </NominationType>
        </ConnectionPoint>
</Nomination_Document>
```

For End User network points the Account Identification in the example below must be "END USER". And there can only be one LineNumber segment for END USER nominations.

4.2.2. Example NOMRES Edig@s V5.1 - Confirmation

The example below is for the network point TTF.

```
<?xml version="1.0" encoding="UTF-8"?>
<NominationResponse_Document release="3" xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationresponsedocument:5:1">
  <identification>NOMRES20180113A23786</identification>
  <version>2</version>
  <type>08G</type>
  <creationDateTime>2018-01-12T08:01:08Z</creationDateTime>
  <validityPeriod>2018-01-13T05:00Z/2018-01-14T05:00Z</validityPeriod>
  <contractReference>GSXXXXXXXXX</contractReference>
  <contractType>CT</contractType>
  <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
  <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
  <recipient_MarketParticipant.identification codingScheme="305">XXXXXXXXXXX</recipient_MarketParticipant.identification>
  <recipient_MarketParticipant.marketRole.code>ZSH</recipient_MarketParticipant.marketRole.code>
  <nomination_Document.identification>20180113A234462</nomination_Document.identification>
  <nomination_Document.version>1</nomination_Document.version>
  <ConnectionPoint>
    <identification codingScheme="ZSO">TTF</identification>
    <measureUnit.code>KW1</measureUnit.code>
    <NominationType>
      <type>A02</type>
      <Account>
        <internalAccount codingScheme="ZSO">GSXXXXX</internalAccount>
        <externalAccount codingScheme="ZSO">GSPRP1</externalAccount>
        <InformationOrigin_TimeSeries>
          <type>16G</type>
          <Period>
            <timeInterval>2018-01-13T05:00Z/2018-01-14T05:00Z</timeInterval>
            <direction.code>Z02</direction.code>
            <quantity.amount>110000</quantity.amount>
            <Status>
```

```
          <code>12G</code>
        </Status>
       </Period>
      </InformationOrigin_TimeSeries>
      <InformationOrigin_TimeSeries>
       <type>18G</type>
       <Period>
        <timeInterval>2018-01-13T05:00Z/2018-01-14T05:00Z</timeInterval>
        <direction.code>Z02</direction.code>
        <quantity.amount>120000</quantity.amount>
        <Status>
         <code>06G</code>
        </Status>
       </Period>
      </InformationOrigin_TimeSeries>
     </Account>
     <Account>
      <internalAccount codingScheme="ZSO">GSXXXXX</internalAccount>
      <externalAccount codingScheme="ZSO">GSPRP2</externalAccount>
      <InformationOrigin_TimeSeries>
       <type>16G</type>
       <Period>
        <timeInterval>2018-01-13T05:00Z/2018-01-14T05:00Z</timeInterval>
        <direction.code>Z03</direction.code>
        <quantity.amount>0</quantity.amount>
        <Status>
         <code>14G</code>
        </Status>
       </Period>
      </InformationOrigin_TimeSeries>
     </Account>
    </NominationType>
   </ConnectionPoint>
</NominationResponse_Document>
```

4.2.3. Example for an interconnection point nomination (example point code BORDER)

```
<?xml version="1.0" encoding="UTF-8"?>
<Nomination_Document release="3" xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationdocument:5:1">
        <identification>NOMINT20150110A00001</identification>
        <version>1</version>
        <type>01G</type>
        <creationDateTime>2015-01-10T09:30:47Z</creationDateTime>
        <validityPeriod>2015-01-10T05:00Z/2015-01-11T05:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSY</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
        <ConnectionPoint>
                <identification codingScheme="ZSO">BORDER</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <NominationType>
                        <type>A02</type>
                        <Account>
                                <internalAccount codingScheme="ZSO">GSPRP</internalAccount>
                                <externalAccount codingScheme="ZSO">BORDER-PRP</externalAccount>
                                        <Period>
                                                <timeInterval>2015-01-10T05:00Z/2015-01-11T05:00Z</timeInterval>
                                                <direction.code>Z03</direction.code>
                                                <quantity.amount>1000</quantity.amount>
                                        </Period>
                        </Account>
                </NominationType>
        </ConnectionPoint>
</Nomination_Document>
```

4.2.4. Example for an interconnection point confirmation (example point code BORDER).

The quantities in this example for 15G and 16G are the same (this does not have to be the case, these amounts can be different).

```
<?xml version="1.0" encoding="UTF-8"?>
<NominationResponse_Document release="3" xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationresponsedocument:5:1">
	<identification>NOMRES20150110A32165</identification>
	<version>1</version>
	<type>08G</type>
	<creationDateTime>2015-01-10T09:30:47Z</creationDateTime>
	<validityPeriod>2015-01-10T05:00Z/2015-01-11T05:00Z</validityPeriod>
	<contractReference>GSPRP</contractReference>
	<contractType>CT</contractType>
	<issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
	<issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
	<recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
	<recipient_MarketParticipant.marketRole.code>ZSH</recipient_MarketParticipant.marketRole.code>
	<nomination_Document.identification>NOMINT20150110A00001</nomination_Document.identification>
	<nomination_Document.version>1</nomination_Document.version>
	<ConnectionPoint>
		<identification codingScheme="ZSO">BORDER</identification>
		<measureUnit.code>KW1</measureUnit.code>
		<NominationType>
			<type>A02</type>
			<Account>
				<internalAccount codingScheme="ZSO">GSPRP</internalAccount>
				<externalAccount codingScheme="ZSO">BORDER-PRP</externalAccount>
				<InformationOrigin_TimeSeries>
					<type>16G</type>
					<Period>
						<timeInterval>2015-01-10T05:00Z/2015-01-11T05:00Z</timeInterval>
						<direction.code>Z03</direction.code>
						<quantity.amount>1000</quantity.amount>
					</Period>
				</InformationOrigin_TimeSeries>
			</Account>
			<Account>
				<internalAccount codingScheme="ZSO">GSPRP</internalAccount>
				<externalAccount codingScheme="ZSO">BORDER-PRP</externalAccount>
				<InformationOrigin_TimeSeries>
					<type>15G</type>
					<Period>
						<timeInterval>2015-01-10T05:00Z/2015-01-11T05:00Z</timeInterval>
						<direction.code>Z03</direction.code>
						<quantity.amount>1000</quantity.amount>
					</Period>
				</InformationOrigin_TimeSeries>
			</Account>
		</NominationType>
	</ConnectionPoint>
</NominationResponse_Document>
```

5. IMBALANCE MANAGEMENT PROCESS

5.1. Process Information

The underneath global description of the process is just for illustration purposes.
The balancing agreement message is used by parties to inform GTS of a balancing deal between these parties. On basis of the balancing agreement information, GTS will be able to take the balancing agreement into account in the allocation process.

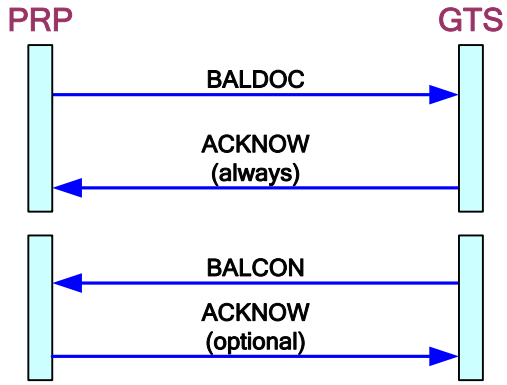
In order to facilitate this balancing relation the BALDOC and BALCON messages are used by both parties involved in the balancing relation (on the TTFB). The message will be a unique balancing agreement message and will use the same protocol as the nomination messages. Matching will be applied to the balancing messages.

5.1.1. Party Imbalance management process overview

The imbalance management process the following external information flows.

Process step	Information flow	From → To
Submit balancing deal	Balancing document (BALDOC) Acknowledgement (ACKNOW message)	PRP → GTS GTS → PRP
Validate internal consistency	Acknowledgement (ACKNOW message) Feedback on internal consistency validation.	GTS → PRP
Confirm balancing deal	Confirmation Program (BALCON)	GTS → PRP

5.1.2. Party Imbalance Management process messages



Trigger

When parties decide upon a balancing deal, both will inform GTS.

Messaging: balancing agreement

Attribute	Definition	Type	Domain	Example	M
From party	The Edig@s code of the portfolio of the sender.	AN	Party Edig@s code	GSPRP	Y
For the sending portfolio, the following attributes are added (repeating group).					
Balancing agreement with	The Edig@s code of the portfolio of the party with whom the sender has a balancing deal.	AN	Party Edig@s code	GSPRP1	Y
Role[3]	The role of the sender ("From party") in the balancing relation.	AN	Supplier Receiver	Receiver	Y
For the above combination, the following attributes must or may be added (repeating group).					
Validity period	Validity period for which the agreement exists;	Date		1-10-2015 06:00 – 1-11-2015 06:00	Y

[3] A supplier role message will have to match with a receiver role message and vice versa.

Attribute	Definition	Type	Domain	Example	M
	date-time from to date-time to.				
Category[4]	End user category for which the balancing deal applies	AN3	G1a, G2a, G2c, GKV, GGV GXX	G1a	Y
Percentage[5]	The percentage of the unbalance that will be allocated	N	%	100%	Y
Minimum[6]	The excluded quantity. This quantity will not be allocated in this deal.	N	kWh/h	1000	Y
Maximum	The maximum value of the amount that will be allocated in this deal.	N	kWh/h	50000	N

Deal

1. A balancing agreement is always sent in by both the balancing receiving party and the balancing providing party.
2. All deals (see message definition above) for the sending portfolio will be sent in one (1) message. In case of a change in one of the deals, all of the deals will be sent (once again).
3. All attributes in the deal will be part of the matching process. In case of a mismatch in one of the attributes, the complete deal will be rejected (and has to be resent).
4. A balancing deal with a partial delivery (percentage of less than 100%) cannot be combined with a minimum (excluded quantity) of more than 0 (zero).
5. Balancing deals that will allocate more than 100% of the sum of the exits (for the balancing receiving portfolio) are not permitted.
   For example: balancing deals are not permitted if the percentages for all balancing deals for a certain portfolio, for one specific category, for a certain period, for a balancing receiving party will exceed 100%.
6. A party can create stacks of balancing deals (within the same portfolio, within the same period, within the same category) with several balance suppliers. In this stack of balance suppliers a supplier portfolio can only appear once.
7. In the same period and the same user category, a portfolio cannot have both roles (supplier and receiver).

Messaging: Own use

(part of the message)

Attribute	Definition	Domain	Example	M
Own Use	The deemed amount that the balance receiving party delivers to the balance supplier.		10000	N

1. Own use can be (but does not have to be) used in combination with a balancing agreement.
2. The own use amount is nominated (by both the balance receiver and supplier) by the use of the regular nomination message, sent in on the regular TTF point.
3. The same matching and allocation rules apply as for the regular deemed nominations.
4. The own use is a deemed quantity and will always be allocated (if confirmed).

Allocation of the balancing deal

[4] Only one category can be mentioned.

[5] If smaller than 100% (partial delivery), the minimum must be 0 (zero).

[6] If the minimum is more than 0, the percentage must be 100% (no partial delivery).

- All balancing deals will be allocated on the special TTF-B (Balancing) point.
- The own use deals will be allocated (and nominated) on the regular TTF point.
- The combination in a balancing deal of both the minimum (excluded quantity) and the percentage is not possible. The balancing partners should choose one of both or neither.
- The allocation based upon the balancing agreement will be done in the following steps (for each deal separately):

1	The sum of all the exits in the portfolio of the balance receiver in the mentioned end user category will be determined.	
2	Or: a. Of the amount calculated in 1, the minimum value (excluded quantity) is deducted.	Or: b. The percentage is calculated of the amount calculated in 1.
3	From the amount calculated in 2, the amount above the maximum is deducted.	
4	The amount calculated above is allocated to both the balance receiver (-, entry amount) and the balance supplier (+, exit amount) on the TTF-B point.	

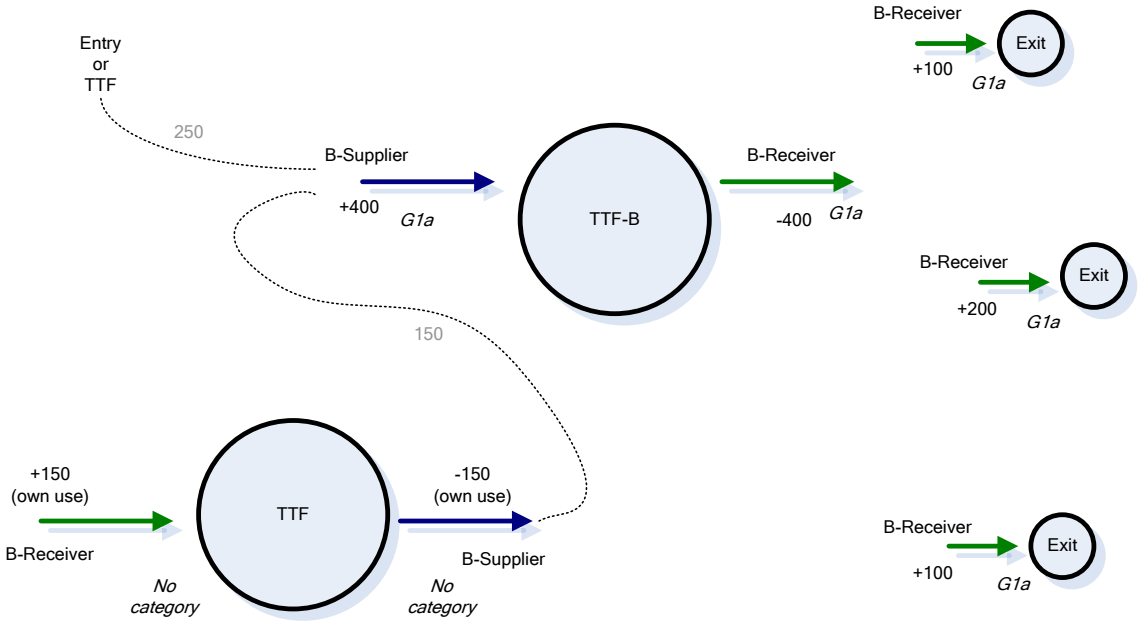
None of the above steps can produce a negative value, a negative value will result in a zero (0) value. Exception is of course step 4 in which the allocation direction is indicated by a + or – sign).

- The allocations on both the regular TTF and TTF-B (Balancing) are part of the Portfolio Imbalance Position (POS).

5.1.3. Functional Examples

Balancing agreement with own use

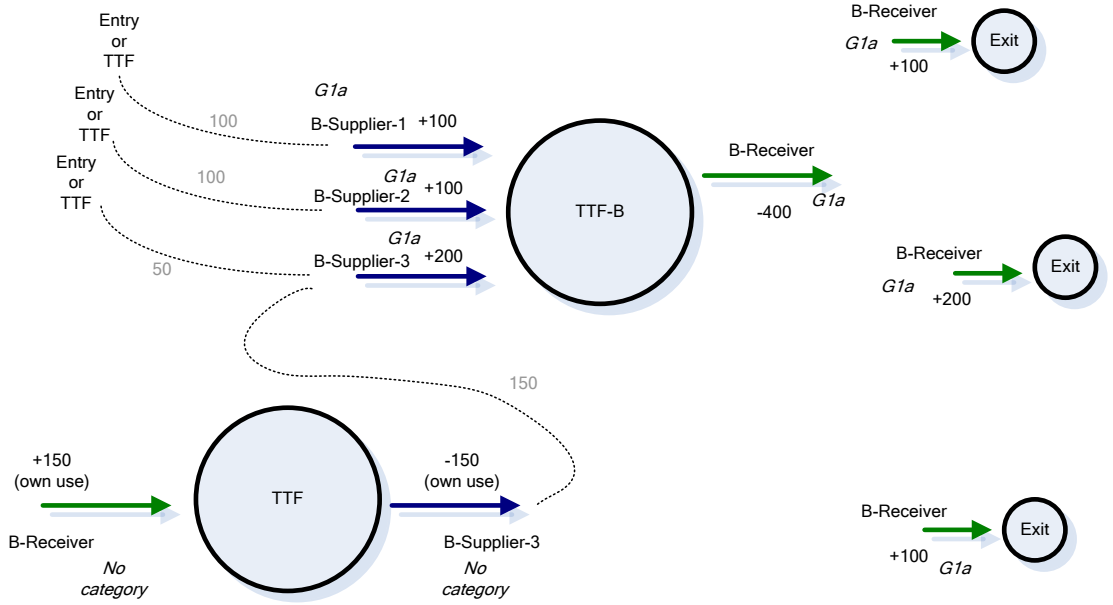
In the example below one balance supplier delivers gas to one balance receiver.



Both parties send in a balancing agreement and an own use nomination (a regular deemed trade nomination is used for handing over the own use amount). In case of a full delivery (100%), a minimum of 0 (zero) and no maximum, an amount equal to the total exit of the balancing receiver (in the specified use category) will be allocated to both the balance receiver (entry allocation on TTF-B) and the balance supplier (exit allocation on TTF-B).

Stacked Balancing agreement (with own use)

In the example below three balance suppliers deliver gas (stacked) to one balance receiver. The first balance supplier delivers the gas up to an amount of 100, the second balance supplier delivers the amount between 100 and 200 and the third one delivers the amount over 200. The receiver brings an amount of 150 into the deal with the third balance supplier. In the example below, the values near the arrows depict the allocations.



All parties sent in a balancing agreement and the balance receiver and balance supplier-3 sent in a separate own use nomination. The balance agreement messages sent in by the balance receiver contain the following values (the deal content of the messages by the balance suppliers is equal):

Sender:	**B-Receiver**
Agreement with:	**B-Supplier-1**
Role:	**Receiver**
Validity period:	**…**
Category:	**G1a**
Percentage:	**100%**
Minimum:	**0**

Sender:	**B-Receiver**
Agreement with:	**B-Supplier-2**
Role:	**Receiver**
Validity period:	**…**
Category:	**G1a**
Percentage:	**100%**
Minimum:	**100**

Sender:	**B-Receiver**
Agreement with:	**B-Supplier-3**
Role:	**Receiver**
Validity period:	**…**
Category:	**G1a**
Percentage:	**100%**
Minimum:	**200**

The total sum of the exits of the balance receiver is used as calculation input for *each* balancing deal.

Allocation to B-receiver and B-Supplier-1:
In the above example, the input value of 400 is capped by the maximum of 100; the allocation on TTF-B will be 100 for both the B-Receiver and the B-Supplier-1.

Allocation to B-receiver and B-Supplier-2:
In the above example, the input value of 400 will be reduced with the minimum of 100[7] (or: excluded quantity); the then remaining amount is 300. This amount is capped by the maximum of 100. Thus, the allocation on TTF-B will be 100 for both the B-Receiver and the B-Supplier-2.

Allocation to B-receiver and B-Supplier-3:
In the above example, the input value of 400 will be reduced with the minimum of 200 (or: excluded quantity); the then remaining amount is 200. There is no maximum. Thus, the allocation on TTF-B will be 200 for both the B-Receiver and the B-Supplier-3.

Note that in the case of stacked balancing agreements, for the balance suppliers, the minimum value is not an absolute value in the deal but a border value (for the total sum of exits of the balance receiver). In some cases the minimum can be greater than the maximum.

[7] If the minimum is greater than the input value (sum of exits) an amount of zero will be allocated to both portfolio's.

5.2. Example Messages

5.2.1. Example BALDOC Edig@s V5.1 - Balancing Agreement Document

The examples are based on the IMBMAN document. In this example GSPRP is the balance supplier and puts gas into the System Operator area (IssuerRole = ZTZ and Direction Z02 = Input). There is no example for the Programme Responsible Party (the receiving party) but should use as IssuerRole ZTY and Direction Z03 (= Output).

Note: This example is for a period (not a single gas day).

```
<?xml version="1.0" encoding="UTF-8"?>
<BalancingAgreement_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:balancingagreementdocument:5:1">
	<identification>BALDOC20150606A00001</identification>
	<version>1</version>
	<type>ALU</type>
	<creationDateTime>2015-12-18T13:12:47Z</creationDateTime>
	<validityPeriod>2015-12-19T05:00Z/2015-12-25T05:00Z</validityPeriod>
	<contractReference>GSPRP</contractReference>
	<contractType>CT</contractType>
	<issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
	<issuer_MarketParticipant.marketRole.code>ZTZ</issuer_MarketParticipant.marketRole.code>
	<recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
	<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
	<ConnectionPoint>
		<identification codingScheme="ZSO">TTFB</identification>
		<measureUnit.code>KW1</measureUnit.code>
		<Account>
			<identification codingScheme="ZSO">GSPRP</identification>
			<Agreement>
				<identification>AGREEMENT00001</identification>
				<period.timeInterval>2015-12-19T05:00Z/2015-12-25T05:00Z</period.timeInterval>
				<agreeingParty_Account.identification
codingScheme="ZSO">GSPRP1</agreeingParty_Account.identification>
				<referenceCategory>G1A</referenceCategory>
				<direction.code>Z02</direction.code>
				<percent_Quantity.amount>100</percent_Quantity.amount>
				<excluded_Quantity.amount>0</excluded_Quantity.amount>
				<max_Quantity.amount>0</max_Quantity.amount>
			</Agreement>
		</Account>
	</ConnectionPoint>
</BalancingAgreement_Document>
```

5.2.2. Example BALCON Edig@s V5.1 - Balancing Confirmation Document

This is the confirmation message to the balance supplier (RecipientRole = ZTZ and Direction Z02 = Input). Note: This example is for a period (not a single gas day).

```
<?xml version="1.0" encoding="UTF-8"?>
<BalancingConfirmation_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:balancingconfirmationdocument:5:1">
	<identification>BALCON20151221A31326</identification>
	<version>1</version>
	<type>ALW</type>
	<creationDateTime>2015-12-18T15:00:22Z</creationDateTime>
	<validityPeriod>2015-12-19T05:00Z/2015-12-25T05:00Z</validityPeriod>
	<contractReference>GSPRP</contractReference>
	<contractType>CT</contractType>
	<issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
	<issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
	<recipient_MarketParticipant.identification codingScheme="305">PRP-EIC</recipient_MarketParticipant.identification>
	<recipient_MarketParticipant.marketRole.code>ZTZ</recipient_MarketParticipant.marketRole.code>
	<ConnectionPoint>
		<identification codingScheme="ZSO">TTFB</identification>
		<measureUnit.code>KW1</measureUnit.code>
		<Account>
			<identification codingScheme="ZSO">GSPRP</identification>
			<Agreement>
				<issuer_Document.identification>BALDOC20151221A00057</issuer_Document.identification>
				<issuer_Document.version>1</issuer_Document.version>
				<identification>AGREEMENT00001</identification>
				<period.timeInterval>2015-12-19T05:00Z/2015-12-25T05:00Z</period.timeInterval>
```

```
                                        <agreeingParty_Account.identification
codingScheme="ZSO">GSPRP1</agreeingParty_Account.identification>
                                        <referenceCategory>G1A</referenceCategory>
                                        <direction.code>Z02</direction.code>
                                        <percent_Quantity.amount>100</percent_Quantity.amount>
                                        <reduced_Quantity.amount>0</reduced_Quantity.amount>
                                        <max_Quantity.amount>0</max_Quantity.amount>
                                        <Reason>
                                                <code>01G</code>
                                        </Reason>
                                </Agreement>
                        </Account>
                </ConnectionPoint>
</BalancingConfirmation_Document>
```

6. PROGRAM PROCESS

6.1. Process Information

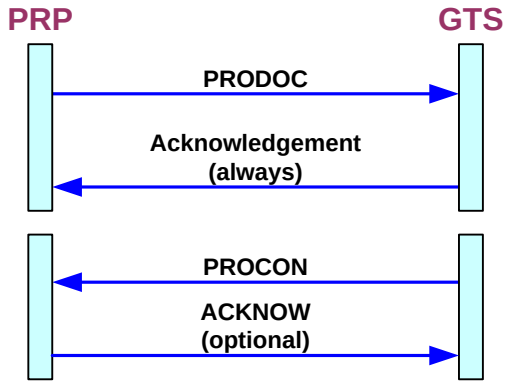
6.1.1. Program process overview

The Program processing is described in 'DPM Programma'. The following processes produce or process external information flows.

Process step	Information flow	From → To
P-1 Publish parameters damping formula (Verstrekken parameters dempingformule)	Parameters damping formula (Parameters demping formule)	GTS → PRP
P-2 Submit program (Indienen programma)	Program (Programma)	PRP → GTS
P-3 Validate internal consistency (Valideren interne consistentie)	Acknowledgement (ACKNOW message) Feedback on internal consistency validation.	GTS → PRP
P-4 Confirm Program (Programma's confirmeren)	Confirmation Program (Programma confirmaties)	GTS → PRP

GTS publishes the parameters of the damping formula[8]. The Program Responsible Party (PRP) sends the Program (D-1) and is directly validated on internal consistency. GTS will acknowledge (positive or negative) the Program.
After all programs are received by GTS an external consistency validation is performed which results in a confirmation of the program.

6.1.2. Program process messages



6.1.3. Program Document message information (PRODOC)

Estimation by the Program Responsible Party of the total gas transport of a gas day.

Purpose
It gives GTS information about the expected volumes (and damping) day ahead and is used for calculation of the imbalance position of the portfolio of the Program Responsible Party.

[8] See the DPM for the exact timing constraints.

Trigger
A Program Responsible Party will send an Entry and/or Exit or Trade Program for each gas day. The type of programs to send is based on the actual contract agreements in use.

Design decisions
- Type Program – Entry / Exit / Trade

A distinction between Programs is needed. Therefore the Program Type is added with the possible values: Entry, Exit and Trade. An Entry or Exit Program can contain trades, only one of those Programs may be used to specify all trades (not both).
- Use of Counter Portfolio GSTPENTRY

A standard Counter Portfolio that always needs to be available in an Entry Program is GSTPENTRY. On this Portfolio the total of all Entry is specified this represents the transfer of the entry to the VPPV. This is used to validate the Program.
For Entry programs no damping will be applied. This means that the GSTPENTRY total is always the sum of the other Counter Portfolio's in the Program for each hour.

A Trade program will contain only trade and the GSTPENTRY/GSTPEXIT portfolios are not present.

Net sum in program type trade
In the PRODOC message type trade the net sum of all trades have to be included for that gas day. So if for example the total amount of your buy transactions equals that of al your trade transaction, the net sum is zero. This situation is shown in the message below with GSTPTRADE having a 0 position in the program.

- A Differentiation of protected users (Kleinverbruik KV)

In an Exit Program a distinction of the total exit needs to be made between protected users. This distinction is required for each PRP. The Counter Portfolio GSTPPU is used to specify the total of Protected Users and the Counter Portfolio GSTPOTHER is used to specify the rest.

- A Differentiation of protected users (Kleinverbruik KV) with a balancing agreement

When the PRP provides a balance the differentiation of protected users must be made by using the additional Counter Portfolio's GSTPPUB and GSTPOTHERB.

- Connection point VPPV

The location on which the program is placed on is the VPPV and is always the same for all programs.

- A Program contains information for one Portfolio of the PRP at a time

- A Program must contain one Gas day.

- A Program will be acknowledged. When the validation takes place before publication of the damping parameters the validation will take place in two steps. The first step validates the internal consistency and will lead to an acknowledgement; the second step validates the application of the damping parameters and will lead to a second acknowledgement.
  When a program is validated after publication of the damping parameters the validation will lead to one acknowledgement.

Content

The primary content of the Program is:

Attribute	Definition	Domain	Example	M
Identification Program Version	Identification of the Program for each PRP for each gas day. Consists of a number to be defined by the PRP and a version if the Program is send more than once for the gas day. This identification is referenced in the Program confirmation.		PRODOC20150411A000001 Version 01	Y
validityPeriod	The gas day(s) in which the Program is valid.	Whole gas day in UTC	2015-04-06T04:00Z/2015-04-07T04:00Z	Y
type	Entry, Exit or Trade Program.	ALH = Trade ALI = Entry ALJ = Exit	ALI	Y
contractReference	Id of the portfolio where the Program is placed in. A PRP can have more than one portfolio.	Portfolio code issued by GTS	GSPRP	Y
issuer_MarketParticipant.identification	Sender of the message	Issued by Entsog	21x-NL-A0A0A-Z	Y
issuer_MarketParticipant.identification	receiver of the message	Issued by Entsog	21x-NL-A0A0A-Z	Y
ConnectionPoint	The Connection point that is used for all Programs. This is always the VPPV (Virtual Point Program Responsible) for a program.	Issued by GTS	VPPV	Y
timeInterval	Whole hour(s) within the Gas day for which the information is valid.	Hours within gas day in UTC	2015-04-06T04:00Z/2015-04-07T04:00Z	Y
Account> <identification	Identification of the Portfolio (ContractCode) of the PRP counter party. Additionally the following Portfolio's are possible: GSTPPU, GSTPPUB, GSTPOTHER, GSTPOTHERB, GSTPENTRY.	Only portfolio codes issued by GTS	GSPRP1	Y
quantity.amount	Total energy in kWh per hour of the Program in the Validity Period and for the Counter Portfolio	Positive value. No decimals allowed	40000	Y
direction.code	The direction of the quantity. Input = Entry = Z02 Output = Exit = Z03	Z02-Entry Z03-Exit	Z02	Y

An acknowledgement contains specific information for the confirmation using codelists codes. Some example situations are:

Program is not allowed for this contract	The Portfolio mentioned in the Program is not valid for the program process.
Program accepted with remarks (damping parameters not yet available).	The Program is received before publication of the damping parameters and is accepted (the basic validations are performed).

6.1.3.1. Functional Examples Program Documents

The examples are only for illustration purposes and serve to illustrate the messages.
The examples should not be seen as or be used as a message specification.

1. Program – Entry (no trade)

ValidityPeriod	06-04-2015 04:00 - 07-04-2015 04:00 (UTC)
TypeProgram	Entry
Portfolio	GSPRP
Connection point	VPPV

Counter Portfolio	Time interval	Direction	Quantity
GSTPENTRY *1*	04:00-08:00	Entry	100000
	08:00-09:00	Entry	100000
	..		..
	02:00-03:00	Entry	100000
	03:00-04:00	Entry	50000
GSPRP *2*	04:00-08:00	Exit	100000
	08:00-09:00	Exit	100000
	..		..
	02:00-03:00	Exit	100000
	03:00-04:00	Exit	50000

1 GSTPENTRY portfolio is the total of all Entries.
2 In this example the whole quantity is transferred (over the VPPV) to the party itself.

2. Program – Exit (with trade and damping)

ValidityPeriod	06-04-2015 04:00 - 07-04-2015 04:00 (UTC)
TypeProgram	Exit
Portfolio	GSPRP
Connection point	VPPV

Counter Portfolio	Time interval	Direction	Quantity
GSTPOTHER *1*	04:00-08:00	Exit	115000
	08:00-09:00	Exit	126000
	..	Exit	..
	02:00-03:00	Exit	123000
	03:00-04:00	Exit	156000
GSPPU *1*	04:00-04:00	Exit	0
GSPRP *2*	04:00-08:00	Entry	100000
	08:00-09:00	Entry	100000
	..	Entry	..
	02:00-03:00	Entry	100000
	03:00-04:00	Entry	100000
GSPRP1	04:00-08:00	Entry	20000
	08:00-09:00	Entry	30000
	..		..
	02:00-03:00	Entry	20000
	03:00-04:00	Entry	50000

1

The portfolio's GSTPPU, GSTPPUB, GSTPOTHER and GSTPOTHERB are the totals of all Exits without damping. The difference between these portfolio's and the other Counter Portfolio's should be the damping calculated with the damping formula.
2
In this example the whole quantity is transferred (over the VPPV) to the party itself. This quantity is also specified in the Exit program.

The damping is not part of the exchanged information and is calculated with the damping formula. The total of all Delta's during the Gas day should be 0. In this example the PRP calculated the following quantities for the delta:

04:00-08:00	5000
08:00-09:00	4000
..	..
02:00-3:00	-3000
03:00-04:00	-6000

3. Program – Trade

ValidityPeriod	06-05-2009 04:00 - 07-05-2009 04:00 (UTC)
TypeProgram	Trade
Portfolio	GSPRP
Connection point	VPPV

Counter Portfolio	**Time interval**	**Direction**	**Quantity**
GSPRP1	04:00-08:00	Exit	120000
	08:00-09:00	Exit	130000
	..		..
	02:00-03:00	Exit	120000
	03:00-04:00	Exit	150000
GSPRP2	04:00-08:00	Entry	120000
	08:00-09:00	Entry	130000
	..	Entry	120000
	02:00-03:00	Entry	120000
	03:00-04:00	Entry	150000

6.1.4. Program Confirmation message information (PROCON)

Confirmation from GTS to the PRP with information after the sent program by the PRP has been processed. This confirmation contains also information about the possible errors.

Purpose
Gives the PRP information about the processing of the program. The PRP could issue an adapted program as a result of this.

Trigger
The receipt of a Program triggers the Program Confirmation.

Design decisions
2. Feedback of the Delta
The calculated value of the Delta as a result of the application of the damping formula is added in the Confirmation of the program. This Delta is placed on a specific portfolio: GSTPD.
The reason for this is that the Delta can be different as expected by the PRP due to error situations. The Delta is also part of the confirmation of the Entry program and will be zero.

3. Feedback of the total transferred from the VPPV.
For an Exit program this is placed on a specific portfolio: GSTPVPPVEX
For an Entry program this is placed on a specific portfolio: GSTPVPPVEN
For a Trade program this is placed on the specific portfolios: GSTPVPPVEN and GSTPVPPVEX.

4. Acknowledgement
A Program confirmation will *not* be acknowledged by the PRP. The PRP needs to take action themselves when no Program confirmation is received (in time).

Content
The content of the Confirmation of the Program is very much like the program itself with the exception that the Quantity can be different to the program due to matching errors, the error codes itself are also added.

Attribute	Definition	Domain	Example	M
Identification Program Version	Identification of the Program for each PRP for each gas day. Consists of a number to be defined by the PRP and a version if the Program is send more than once for the gas day. This identification is referenced in the Program confirmation.		PRODOC20150411A00 0001 Version 01	Y
validityPeriod	Entry, Exit or only Trade Program. An Entry program confirmation always contains the special Portfolio GSTPENTRY, but can also contain trade. An Exit program confirmation always contains the special Portfolio GSTPEXIT, but can also contain trade. Trade program confirmation will contain only trade and the portfolio's GSTPENTRY and GSTPEXIT are not present.	ALK =Trade ALL = Entry ALM = Exit	ALL	Y
type	Id of the portfolio (ContractCode) where the Transport Program is placed in. A PRP can have more than one portfolio.	Portfolio code issued by GTS	GSPRP	Y
contractReference	The Connection point that is used for all Programs. This is always the VPPV (Virtual Point Program Responsible) for a program	Issued by GTS	VPPV	Y
Confirmed Program	Identification of the Program that is confirmed		PRODOC200909110000 01 Version 01	Y
timeInterval	Whole hour(s) within the Gas day for which the information is valid.	Hour within Validity period	2015-04-06T04:00Z/2015-04-07T04:00Z	Y
Account> <identification	Identification of the Portfolio of the PRP counter party. Additionally the following Portfolios are possible: GSTPEXIT, GSTPPU, GSTPPUB, GSTPOTHER, GSTPOTHERB, GSTPENTRY and GSTPVPPVEN, GSTPVPPVEX, GSTPD	Only portfolio codes issued by GTS	GSPRP1	Y
quantity.amount	Total quantity that is confirmed. This can be another value than the program. The Quantity is 0 when there is a mismatch.	Positive value. No decimals allowed	35000	Y
direction.code	Reason code giving feedback about the confirmation. Ok if there are no errors or an error code if there are errors.	Edig@s code list	70G	Y

The Reason code can contain the following situations (the complete list will be specified in het Edig@s MIG):

- Program Accepted
- Damping incorrect
- Program Accepted with remarks (Message ok; chain is not correct yet)
- Program Rearranged to match
- The type of Transport Program is not allowed
- The damping parameter is not applied correctly and is set to 0 in the Program confirmation.
- All items in the program are accepted only not all programs in the chain of Counter portfolio's are accepted.
- The quantity is adapted due to a mismatch.

6.1.4.1. Functional Examples Program Confirmation

The examples are only for illustration purposes and serve to illustrate the messages. The examples should not be seen as or be used as a message specification.

1. Program – Entry (no trade)

ValidityPeriod 06-04-2015 04:00 - 07-04-2015 04:00 (UTC)
TypeProgram Entry
Portfolio GSPRP
Connection point VPPV

Counter Portfolio	Time interval	Direction	Quantity	Reason
GSTPENTRY	04:00-08:00	Exit	120000	OK
	08:00-09:00	Exit	130000	OK
	..		..	OK
	02:00-03:00	Exit	120000	OK
	03:00-04:00	Exit	150000	OK
GSPRP	04:00-08:00	Entry	120000	OK
	08:00-09:00	Entry	130000	OK
	..		..	OK
	02:00-03:00	Entry	120000	OK
	03:00-04:00	Entry	150000	OK
GSTPD	04:00-08:00		0	OK
	08:00-09:00		0	OK
	..		..	OK
	02:00-03:00		0	OK
	03:00-04:00		0	OK
GSTPVPPVEX	04:00-08:00	Exit	120000	OK
	08:00-09:00	Exit	130000	OK
	..		..	OK
	02:00-03:00	Exit	120000	OK
	03:00-04:00	Exit	150000	OK

The GSTPDT (feedback of the delta) will always be zero in the entry program.

2. Program – Exit (with trade and damping)

ValidityPeriod 06-04-2015 04:00 - 07-04-2015 04:00 (UTC)
TypeProgram Exit
Portfolio GSPRP
Connection point VPPV

Counter Portfolio	Time interval	Direction	Quantity	Reason
GSTPEXIT	04:00-08:00	Exit	115000	OK
	08:00-09:00	Exit	126000	OK
	..		..	OK
	02:00-03:00	Exit	123000	OK
	03:00-04:00	Exit	156000	OK
GSPRP	04:00-08:00	Entry	100000	OK
	08:00-09:00	Entry	100000	OK
	..		..	OK
	02:00-03:00	Entry	100000	OK
	03:00-04:00	Entry	100000	OK
GSPRP1	04:00-08:00	Entry	20000	OK
	08:00-09:00	Entry	30000	OK
	..		..	OK
	02:00-03:00	Entry	20000	OK
	03:00-04:00	Entry	50000	OK
GSTPD *1*	04:00-08:00	Exit	5000	OK
	08:00-09:00	Exit	4000	OK
	..		..	OK
	02:00-03:00	Entry	3000	OK
	03:00-04:00	Entry	6000	OK
GSTPVPPVEN	04:00-08:00	Exit	120000	OK
	08:00-09:00	Exit	130000	OK
	..		..	OK
	02:00-03:00	Exit	120000	OK
	03:00-04:00	Exit	150000	OK

1
The extra Counter portfolio is added with the confirmed delta that is allowed according to the application of the damping formula.

3. **Program – Trade**

ValidityPeriod 06-04-2015 04:00 - 07-04-2015 04:00 (UTC)
TypeProgram Trade
Portfolio GSPRP
Connection point VPPV

Counter Portfolio	Time interval	Direction	Quantity	Reason
GSPRP1	04:00-08:00	Exit	120000	OK
	08:00-09:00	Exit	130000	OK
	..		..	OK
	02:00-03:00	Exit	120000	OK
	03:00-04:00	Exit	150000	OK
GSPRP2	04:00-08:00	Entry	120000	OK
	08:00-09:00	Entry	130000	OK
	..	Entry	120000	OK
	02:00-03:00	Entry	120000	OK
	03:00-04:00	Entry	150000	OK
GSTPD	04:00-08:00		0	OK
	08:00-09:00		0	OK
	..		..	OK
	02:00-03:00		0	OK
	03:00-04:00		0	OK
GSTPVPPVEN	04:00-08:00	Exit	120000	OK
	08:00-09:00	Exit	130000	OK
	..		..	OK
	02:00-03:00	Exit	120000	OK
	03:00-04:00	Exit	150000	OK
GSTPVPPVEX	04:00-08:00	Entry	120000	OK
	08:00-09:00	Entry	130000	OK
	..		..	OK
	02:00-03:00	Entry	120000	OK
	03:00-04:00	Entry	150000	OK

6.1.5. Programme Process – Used Counterparties

The following names have special purposes in the entry, trade and exit programmes:

Entry program

You must include GSTPENTRY in the PRODOC for your entry program.
The PRODOC for your entry program **must** contain at least one other PV Code (otherwise the programme can never be balanced) even if the flow is zero for each hour.

PRODOC (entry nomination):
GSTPENTRY - Defines the physical entry

You must **not** include these codes in the PRODOC for your entry programme.
PROCON (entry confirmation):
GSTPVPPVEX - Defines the virtual exit
GSTPD - Defines the Delta

Exit program

You must **not** include any of these codes in the PRODOC for your exit programme.

PRODOC (exit nomination):
GSTPPU - Defines the physical exit for private consumption (kleinverbruik)
GSTPOTHER - Defines the physical exit for other purposes
GSTPPUB - Defines the physical exit for private consumption for balancing trade relation (kleinverbruik)
GSTPOTHERB - Defines the physical exit for other purposes for balancing trade relation
You must include at least one of the codes above in the PRODOC for your exit programme

The PRODOC for your exit programme **must** contain at least one other PV Code (otherwise the programme can never be balanced) even if the flow is zero for each hour.

PROCON (exit confirmation):
GSTPVPPVEN - Defines the virtual entry
GSTPD - Defines the Delta
GSTPEXIT – Defines the total physical exit

Trade program

You must **not** include any of these codes in the PRODOC for your trade programme.

PROCON (trade confirmation):
GSTPVPPVEN - Defines the virtual entry
GSTPVPPVEX - Defines the virtual exit
GSTPD - Defines the Delta

6.2. Example Messages

The quantities in the examples below differ from the functional examples. The identification in these PRODOC examples has the type of program in the identification for example purposes. In practice the PRODOC will have an identification like PRODOC20151010A0123.

6.2.1. Example PRODOC Edig@s V5.1 – Entry Program nomination

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecast_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastdocument:5:1" >
	<identification>PRODOC20151010A0123</identification>
	<version>1</version>
	<type>ALI</type>
	<creationDateTime>2015-10-10T09:30:47Z</creationDateTime>
	<validityPeriod>2015-10-10T04:00Z/2015-10-11T04:00Z</validityPeriod>
	<contractReference>GSPRP</contractReference>
	<contractType>CT</contractType>
	<issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
	<issuer_MarketParticipant.marketRole.code>ZTY</issuer_MarketParticipant.marketRole.code>
	<recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
	<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
	<applicationContext codingScheme="305">APPLICATIONCTX</applicationContext>
	<ConnectionPoint>
		<identification codingScheme="305">21Y000000000011R</identification>
		<measureUnit.code>KW1</measureUnit.code>
		<Account>
			<identification codingScheme="ZSO">GSPRP</identification>
			<type>ZUD</type>
			<Period>
				<timeInterval>2015-10-10T04:00Z/2015-10-11T04:00Z</timeInterval>
				<direction.code>Z02</direction.code>
				<quantity.amount>1000</quantity.amount>
			</Period>
		</Account>
		<Account>
			<identification codingScheme="ZSO">GSTPENTRY</identification>
			<type>ZUD</type>
			<Period>
				<timeInterval>2015-10-10T04:00Z/2015-10-11T04:00Z</timeInterval>
				<direction.code>Z02</direction.code>
				<quantity.amount>1000</quantity.amount>
			</Period>
		</Account>
	</ConnectionPoint>
</LoadForecast_Document>
```

6.2.2. Example PRODOC Edig@s V5.1 – Exit Program nomination

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecast_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastdocument:5:1" >
	<identification>PRODOC20151010A0123</identification>
	<version>1</version>
	<type>ALJ</type>
	<creationDateTime>2015-10-10T09:30:47Z</creationDateTime>
	<validityPeriod>2015-10-10T04:00Z/2015-10-11T04:00Z</validityPeriod>
	<contractReference>GSPRP</contractReference>
	<contractType>CT</contractType>
	<issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
	<issuer_MarketParticipant.marketRole.code>ZTY</issuer_MarketParticipant.marketRole.code>
	<recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
	<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
	<applicationContext codingScheme="305">APPLICATIONCTX</applicationContext>
	<ConnectionPoint>
		<identification codingScheme="305">21Y000000000011R</identification>
		<measureUnit.code>KW1</measureUnit.code>
		<Account>
			<identification codingScheme="ZSO">GSPRP</identification>
			<type>ZUD</type>
			<Period>
				<timeInterval>2015-10-10T04:00Z/2015-10-11T04:00Z</timeInterval>
				<direction.code>Z02</direction.code>
				<quantity.amount>1000</quantity.amount>
			</Period>
		</Account>
		<Account>
			<identification codingScheme="ZSO">GSTPOTHER</identification>
			<type>ZUD</type>
			<Period>
```

```
                                        <timeInterval>2015-10-10T04:00Z/2015-10-11T04:00Z</timeInterval>
                                        <direction.code>Z03</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                </Period>
                        </Account>
                </ConnectionPoint>
</LoadForecast_Document>
```

6.2.3. Example PRODOC Edig@s V5.1 – Trade Program nomination

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecast_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastdocument:5:1" >
        <identification>PRODOC20151010A0123</identification>
        <version>1</version>
        <type>ALH</type>
        <creationDateTime>2015-10-10T09:30:47Z</creationDateTime>
        <validityPeriod>2015-10-10T04:00Z/2015-10-11T04:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">PRP-EIC</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZTY</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
        <applicationContext codingScheme="305">APPLICATIONCTX</applicationContext>
        <ConnectionPoint>
                <identification codingScheme="305">21Y000000000011R</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <Account>
                        <identification codingScheme="ZSO">GSTPTRADE</identification>
                        <type>ZUD</type>
                        <Period>
                                <timeInterval>2015-10-10T04:00Z/2015-10-11T04:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>0</quantity.amount>
                        </Period>
                </Account>
        </ConnectionPoint>
</LoadForecast_Document>
```

6.2.4. Example PROCON Edig@s V5.1 – Entry Program confirmation

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecastConfirmation_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastconfirmationdocument:5:1">
        <identification>PROCON20151212A82542</identification>
        <version>1</version>
        <type>ALL</type>
        <creationDateTime>2015-12-11T14:34:10Z</creationDateTime>
        <validityPeriod>2015-12-12T05:00Z/2015-12-13T05:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">PRP-EIC</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZTY</recipient_MarketParticipant.marketRole.code>
        <proDoc_Document.identification>PRODOCENTRY2015-12-11</proDoc_Document.identification>
        <proDoc_Document.version>1</proDoc_Document.version>
        <ConnectionPoint>  <identification codingScheme="305">21Y000000000011R</identification>
        <measureUnit.code>KW1</measureUnit.code>
                <Account>
                        <identification codingScheme="ZSO">GSPRP</identification>
                        <type>ZOC</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T04:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSTPD</identification>
                        <type>ZTX</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>0</quantity.amount>
```

```
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                        <Account>
                                <identification codingScheme="ZSO">GSTPENTRY</identification>
                                <type>ZOC</type>
                                <Period>
                                        <timeInterval>2015-12-12T05:00Z/2015-12-13T04:00Z</timeInterval>
                                        <direction.code>Z02</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                        <Account>
                                <identification codingScheme="ZSO">GSTPVPPVEX</identification>
                                <type>ZUD</type>
                                <Period>
                                        <timeInterval>2015-12-12T05:00Z/2015-12-13T04:00Z</timeInterval>
                                        <direction.code>Z03</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                </ConnectionPoint>
</LoadForecastConfirmation_Document>
```

6.2.5. Example PROCON Edig@s V5.1 – Exit Program confirmation

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecastConfirmation_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastconfirmationdocument:5:1">
        <identification>PROCON20151212A82585</identification>
        <version>1</version>
        <type>ALM</type>
        <creationDateTime>2015-12-11T14:34:13Z</creationDateTime>
        <validityPeriod>2015-12-12T05:00Z/2015-12-13T05:00Z</validityPeriod>
        <contractReference>GSBIBPV07</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">PRP-EIC</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZTY</recipient_MarketParticipant.marketRole.code>
        <proDoc_Document.identification>PRODOC2015-12-12A00001</proDoc_Document.identification>
        <proDoc_Document.version>1</proDoc_Document.version>
        <ConnectionPoint>
                <identification codingScheme="305">21Y000000000011R</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <Account>
                        <identification codingScheme="ZSO">GSPRP</identification>
                        <type>ZOC</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z02</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSTPD</identification>
                        <type>ZTX</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>0</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSTPEXIT</identification>
                        <type>ZOC</type>
                        <Period>
```

```
                                        <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                        <direction.code>Z03</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                        <Account>
                                <identification codingScheme="ZSO">GSTPOTHER</identification>
                                <type>ZOC</type>
                                <Period>
                                        <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                        <direction.code>Z03</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                        <Account>
                                <identification codingScheme="ZSO">GSTPVPPVEN</identification>
                                <type>ZUD</type>
                                <Period>
                                        <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                        <direction.code>Z02</direction.code>
                                        <quantity.amount>1000</quantity.amount>
                                        <Reason>
                                                <code>84G</code>
                                        </Reason>
                                </Period>
                        </Account>
                </ConnectionPoint>
</LoadForecastConfirmation_Document>
```

6.2.6. Example PROCON Edig@s V5.1 - Trade Program confirmation

```
<?xml version="1.0" encoding="UTF-8"?>
<LoadForecastConfirmation_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:loadforecastconfirmationdocument:5:1">
        <identification>PROCON20151212A82578</identification>
        <version>1</version>
        <type>ALK</type>
        <creationDateTime>2015-12-11T14:34:13Z</creationDateTime>
        <validityPeriod>2015-12-12T05:00Z/2015-12-13T05:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">PRP-EIC</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZTY</recipient_MarketParticipant.marketRole.code>
        <proDoc_Document.identification>PRODOC2015-12-12A00001</proDoc_Document.identification>
        <proDoc_Document.version>6</proDoc_Document.version>
        <ConnectionPoint>
                <identification codingScheme="305">21Y000000000011R</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <Account>
                        <identification codingScheme="ZSO">GSPRP1</identification>
                        <type>ZOC</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z02</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSPRP2</identification>
                        <type>ZOC</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
```

```
                        <identification codingScheme="ZSO">GSTPD</identification>
                        <type>ZTX</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>0</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSTPVPPVEN</identification>
                        <type>ZUD</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z02</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
                <Account>
                        <identification codingScheme="ZSO">GSTPVPPVEX</identification>
                        <type>ZUD</type>
                        <Period>
                                <timeInterval>2015-12-12T05:00Z/2015-12-13T05:00Z</timeInterval>
                                <direction.code>Z03</direction.code>
                                <quantity.amount>1000</quantity.amount>
                                <Reason>
                                        <code>84G</code>
                                </Reason>
                        </Period>
                </Account>
        </ConnectionPoint>
</LoadForecastConfirmation_Document>
```

6.2.7. Example CLRCON Edig@s V5.1 (on BVP)

```
<?xml version="1.0" encoding="UTF-8"?>
<ClearingConfirmation_Document release="2" xmlns="urn:easeegas.eu:edigas:balancing:clearingconfirmationdocument:5:1">
        <identification>CLRCON20150210A19291</identification>
        <version>1</version>
        <type>ALS</type>
        <creationDateTime>2015-02-10T11:21:49Z</creationDateTime>
        <validityPeriod>2015-02-10T05:00Z/2015-02-11T05:00Z</validityPeriod>
        <contractReference>GSPRP</contractReference>
        <contractType>CT</contractType>
        <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-Z</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">PRP-EIC</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZTY</recipient_MarketParticipant.marketRole.code>
        <ConnectionPoint>
                <identification codingScheme="ZSO">BVP</identification>
                <measureUnit.code>KW1</measureUnit.code>
                <currency.code>EUR</currency.code>
                <Account>
                        <identification codingScheme="ZSO">GSPRP</identification>
                        <Period>
                                <timeInterval>2015-02-10T05:00Z/2015-02-10T13:00Z</timeInterval>
                                <direction.code>Z02</direction.code>
                                <quantity.amount>0</quantity.amount>
                                <price.amount>0.000000</price.amount>
                        </Period>
                        <Period>
                                <timeInterval>2015-02-10T13:00Z/2015-02-11T05:00Z</timeInterval>
                                <direction.code>Z02</direction.code>
                                <quantity.amount>12345</quantity.amount>
                                <price.amount>0.0212345</price.amount>
                        </Period>
                </Account>
        </ConnectionPoint>
</ClearingConfirmation_Document>
```

7. ACKNOWLEDGEMENT MESSAGES

7.1. Overview Acknowledgement messages

The table below shows an overview of acknowledgement messages used by GTS per message type.

Acknowledgement messages will be sent in a 5 minute cycle. This means that it can take up to 5 minutes as a maximum that an acknowledgment message will be sent.

Message		Acknowledgement		Remarks
From → To	**Type**	**From → To**	**Type**	
PRP → GTS	*NOMINT*	GTS → PRP	ACKNOW	
GTS → PRP	*NOMRES*	PRP → GTS	none	Only when requested by PRP
PRP → GTS	*PRODOC*	GTS → PRP	*ACKNOW*	
GTS → PRP	*PROCON*	PRP → GTS	none	Only when requested by PRP
GTS → PRP	*CLRCON*	PRP → GTS	none	Only when requested by PRP
PRP → GTS	*BALDOC*	GTS → PRP	*ACKNOW*	
GTS → PRP	*BALCON*	PRP → GTS	none	Only when requested by PRP

7.1.1. CONTRL message

CONTRL messages are not supported by GTS.

7.1.2. ACKNOW message

An ACKNOW is the Acknowledgement message sent by GTS.

The ACKNOW should be a response on the PRP business level application, when the data from the messaging layer has been interpreted and understood by the business system.
Code 01G means the message has been accepted and processed by GTS without a problem.
Every other received code means there was an issue or some information other than normal which should be investigated by the Program Responsible Party.

Only ReasonCode with value 68G can have a tag <ReasonText>

7.2. Example ACKNOW Edig@s V5.1 – Acknowledgement - Accepted

```
<?xml version="1.0" encoding="UTF-8"?>
<Acknowledgement_Document release="2" xmlns="urn:easeegas.eu:edigas:general:acknowledgementdocument:5:1">
        <identification>ACKNOW20150318A97452</identification>
        <version>1</version>
        <type>294</type>
        <creationDateTime>2015-03-18T14:50:33Z</creationDateTime>
        <issuer_MarketParticipant.identification codingScheme="305">21X-NL-A-A0A0A-
Z</issuer_MarketParticipant.identification>
        <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
        <recipient_MarketParticipant.identification codingScheme="305">PRP-
EIC</recipient_MarketParticipant.identification>
        <recipient_MarketParticipant.marketRole.code>ZSY</recipient_MarketParticipant.marketRole.code>
        <receiving_Document.identification>NOMINT20150318A00001</receiving_Document.identification>
```

```
        <receiving_Document.version>1</receiving_Document.version>
        <receiving_Document.type>01G</receiving_Document.type>
        <receiving_Document.creationDateTime>2015-03-18T10:47:39Z</receiving_Document.creationDateTime>
        <Reason>
                <code>01G</code>
        </Reason>
</Acknowledgement_Document>
```

8. APPENDIX ABBREVIATIONS AND TERMINOLOGY

Accepted	This status is used to qualify in incoming message from a PRP that has gone successfully through syntactic, semantic and contractual checks and then "accepted" within IT system of the TSO. Depending on the TSA, the result of those different controls can lead to a modification of the quantities or to a partial or complete rejection of the message.
Confirmed	This status is used to qualify quantities after the application of the *lesser of* rule to the mirrored quantities, which have been previously processed by the respective TSO's on their own side of the flange.
Call-Up Sending Hour	Time when GTS will send the first DELORD-P (Call-Up) which normally will be direct after the Correction Deadline.
Correction Deadline	(Second PRP deadline - 16:00 LET)) Deadline for Program Responsible Parties to submit revised transport nominations to their respective TSO's for transportation on Gas day.
Gas day	A period commencing at 06.00 hours (LET) on a calendar day and ending at 06.00 hours (LET) the following calendar day, and the date of a gas day shall be the date of its beginning as herein defined.
GTS	Gasunie Transport Services, Transmission Service Operator in the Netherlands.
LET	Local European Time
Matching hour	Deadline for TSO's to send a NOMRES (Confirmation Notice) to their respective Program Responsible Parties having submitted a nomination before the Second Shipper Deadline
MIG	Message Implementation Guidelines by Edig@s Working group
System Operators	Neighbouring Network Operator or Transmission Service Operator, in the Netherlands this is GTS.
Nominated	This status is given to the quantities sent from a shipper to its respective TSO in a nomination message.
Nomination	Set of information composed of different references to shipper and/or contract, period, points or routes, upstream/downstream counterparties, quantities
Nomination Deadline	Deadline for Program Responsible Parties to submit transport nominations to their respective TSO's for transportation on Gas day. All nominations arriving after this deadline will be 'buffered' until the Correction Deadline.
Nomination Pre-Alarm	Deadline used by GTS dispatching.
Processed	This status is used to define nominations from a shipper that may have been modified by the TSO taking into account any physical calculation, capacity constraint, balancing obligations …
PRP	Program Responsible Party, Dutch: PV (Programma Verantwoordelijke)
TRN pre-alarm	(GTS internal) Time, which triggers an alarm for dispatching that a DELRES P/C (TRN), is not in yet.
UTC	Universal Time Coordinated