

Detailed Process Model (DPM)

Information Exchange

Uitgave van

NEDU

Auteur

ICWG

Versienummer

5.0

Versiedatum

march 6, 2019

Status

Final

Versions

Version	Name	Date	Status	Distribution
0.5	Confirmation BPL call added, Non functionals added	22-04-2009	Concept	Subgroep DPM Informatieuitwisseling
0.6	SBS , examples added of Program, Confirmation Program, POS and SBS.	13-05-2009	Concept	Subgroep DPM Informatieuitwisseling
0.7	POS, SBS enhanced, examples added of other messages. Berichtdefinitie van POS en SBS toegevoegd	22-06-2009	Concept	Subgroep DPM Informatieuitwisseling
0.8	Review internal GTS, Gasterra and Essent processed. POS and SBS changed	13-08-2009	Concept	Subgroep DPM Informatieuitwisseling
0.9	Review Internal Gts, Edsn and Electrabel processed.	27-08-2009	Concept	Subgroep DPM Informatieuitwisseling
0.91	Review Gasterra and Electrabel processed	08-09-2009	Concept	Subgroep DPM Informatieuitwisseling
1.0	Internal Review (consistecne other DPM's and open items).	14-09-2009	Final	Subgroep DPM Informatieuitwisseling WMWG
1.1	Planning added. Definitions POS/SBS changed. Appendix A changed. Various small changes.	22-09-2009	Final	All
1.2	2.2 Planning: different dates for definition availability. 3.1.4 and 3.1.5 APERAK added from PRP to SO as already specified in 4.4 Corrections from review of MIG and Webservices POS/SBS: * 2.3.3 Error messages in Code Lists Edigas * 3 'possibly' deleted * 4.1 point 4, specification of exact Portfolio 3. Balancing relation will be a message. (Edigas) 4.8 Balancing Agreement added. 4.3 Added "Type Bid" in bid price ladder offer.	20-11-2009	Final	All
1.21	3.1.4 and 4.5 Confirmation to Bidder explained, virtual networkpoints added 4.8 Balancing agreement, messaging, dot 7; with party the portfolio of a party is meant.	14-12-2009	Final	All
2.0	For ALV-NEDU approval. - Some typo's have been corrected. - POS (4.6) -> 15 minutes has become 20 minutes. - 4.3 Paragraph directly under 'content' is removed. 4.3 Content "Direction" added. 4.5 Design decisions, dot 3. clarified. 4.2 and 4.5 kWh/h added. 4.8 Balancing agreement: kwh is kWh/h. 4.8 Example stacked agreement: minimum of supplier 2 is 100.	12-01-2010	Final	All
3.0	Changes as a result of the update to the market model. - Removed every reference to the Bid Price Ladder and the Bid activation as this is being replaced with the WDM Action - Removed all references to development and certification of automated information streams and messages as the messages for the involved parties will stay the same or will be deprecated (like the BIDDOC and BIDACT). - The Bid Price Ladder offer messages has been removed (BIDDOC).	12-06-2013	Final Vastgesteld door ALV-NEDU 12 June 2013	All

	- The BIDACT document will only be used for emergency measure calls - All Dutch texts have been removed - Only messages between GTS and PV-ers are mentioned in this document. The (bilateral) messages between GTS and the WDM are not mentioned - Some typos removed.			
3.099	Added user category GMN (balancing relation) for net loss processing.	16-01-2014	Concept	ALV-Nedu
3.2	Changes as a result of the transition from AS2 to AS4; deleting the technical information and definition from this MPM (paragraph 3.2).	19-02-2018	Concept	ALV NEDU
3.9	For approval ALV NEDU	15-05-2018	For approval	ALV NEDU
4.0	Final	29-05-2018	Final	Website
4.9	Including Closed Distribution System Operator (CDS-operator); for approval ALV NEDU	26-02-2019	For approval	ALV NEDU
5.0	Final	06-03-2019	Final	Website

Referenced documents

Ref	Name	Owner	Date	Version
1	Market Process Model "Market Model Whole Sale Gas"	ICWG	-	Last
2	DPM Programme	ICWG	-	Last
3	DPM Within Day Balancing Action process	ICWG	-	Last
4	DPM Market and allocation	ICWG	-	Last

Contents

1	Introduction.....	5
1.1	Goal of the document	5
1.2	Scope of this document.....	5
1.3	Abbreviations and terminology.....	5
2	Basic assumptions	6
2.1	Approach	6
2.2	Content.....	6
3	Overview.....	8
3.1	Processes and information flows.....	9
3.2	Communication	11
4	Content	12
4.1	Program.....	12
4.2	Program Confirmation	16
4.3	Causer Confirmations.....	20
4.4	Emergency Measure Supplier Activation	22
4.5	Emergency Measure Activation Confirmation messages	24
4.6	Portfolio Imbalance Signal – POS	26
4.7	System Balance Signal – SBS	30
4.8	Balancing Agreement.....	33
	Appendix A - GTS B2B webservices	39
	Appendix B - Relation To Edigas messages.....	40

1 Introduction

1.1 Goal of the document

This document is part of the Detailed Process Model (DPM) that covers the relevant information flows, as described in the MPM "Market Model Wholesale Gas" [1]. This document is strongly related to other DPM's that describe the processes (see Referenced documents [2], [3] en [4]).

The functional definitions of the information flows are described in this document. The final technical definitions are described in the technical specifications documents (e.g. Edigas and/or XML definitions).

1.2 Scope of this document

In scope

This document contains the functional description of the information exchange as a result of the market and balancing model as of 1 April 2014. On basis of this document the actual technical message descriptions have been or will be made (in separate documents). The scope in more detail is as follows:

1. For all the data groups that will be interfaced (automated) will be indicated in which form (e.g. type of message) and with what kind of infrastructure (e.g. webservices, webscreens, etc.) the data are exchanged.
2. The information exchange which is used for steering purposes in the market and balancing regime.
 - ☐ The near real-time information exchange which is used for parties "to act upon" (e.g. POS, SBS, program and WDM Balancing Action process information) will be described in full detail.
3. The information exchange currently in use.
 - ☐ The information exchange used in the current GTS B2B webservices will be described in an appendix.

Not in scope

1. The non-automated information exchange.
2. The detailed layout and definitions of web screens.

1.3 Abbreviations and terminology

PRP	Program Responsible Party
SO	System Operator, in the Netherlands this is GTS (Gastransportservices). Sometimes called TSO (Transmission Service Operator)
Portfolio	Group of Networkpoints on which level balancing is applied. Synoniem of ContractCode (i.e. GSABC)
ContractID	Numerical identification of a Portfolio (i.e. numbers beginning with 56). Currently used in the Downloads.
UTC	Coordinated Universal Time
CET	Central European Time = UTC+1
LET	Local European Time
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.

2 Basic assumptions

2.1 Approach

The following assumptions have been made as a starting point for the design and implementation of the information exchange in the Dutch market and balancing model:

1. The communication means are as much as possible easily accessible for all involved parties and especially for new parties.
2. For the information being exchanged, as much as possible market standards have been used for message design and infrastructure.
3. Development of messages (i.e. technical message definitions) is done by:
 - a. The Edigas organisation;
 - b. EDSN;
 - c. By GTS, on basis of the EDSN standards.

2.2 Content

In this chapter the general requirements are defined that apply for all or a group of messages (Edigas messages or XML webservice).

2.2.1 General

1. Recognizing (portfolio's of) market parties will be done primarily by the Edigas code. This is the only identifier that is used (or is easy to acquire) by all parties. For details concerning the use of identifiers, see the detailed message definitions.
2. The standard (and sole) unit for exchanging Energy data is kWh/h for energy quantities per hour and kWh for an energy quantity. (e.g. Program - 6:00-8:00 500 kWh/h, this is a flow of 500 for each hour. POS -540 kWh this is a position and not a quantity per hour).
3. Prices are noted in 4 decimals (e.g. € 0,1012) and in Euro.
4. An entry amount is depicted with a negative ("-") sign, e.g. -100 means 100 entry.
5. An exit amount is depicted without a sign, e.g. 100 means 100 exit.
6. The sign convention for a balance signal is as follows:
 - a. A negative imbalance amount (e.g. -15) means that a party has realised 15 more entry than exit. In other words: the party should have had 15 more exit or 15 less entry to be in balance (i.e. Long).
 - b. A positive imbalance amount (e.g. 80) means that a party has 80 more exit than entry. In other words: the party should have had 80 more entry or 80 less exit (i.e. Short).

2.2.2 XML messages (webservices)

1. Time in the messages is formatted in CET.
2. Allocated and measured energy amounts are noted in 6 decimals, e.g. 1200.123456 kWh/h. The POS and SBS have no decimals.
3. As a label for a period of a full clock hour, the time of the next hour is used. E.g.:
 - c. 30th June from 08:00 – 09:00 will be expressed by the hour 09:00;
 - d. 30th June from 23:00 – 0:00 will be expressed as 1st of July 0:00.
4. The information that is made available by GTS (e.g. POS, SBS, allocations, etc.) is made available on a "collect basis". This means that the parties who use this data, have to collect it. In a technical way: GTS deploys webservices which the PRP can approach to get the needed data.

2.2.3 Edigas messaging

1. Time in the Edigas messages is formatted in UTC.
2. Energy amounts are noted in 0 decimals, e.g. 1200 kWh/h.
3. The Edigas version for all messages will be version 4 or higher. Only XML versions of the messages are supported.

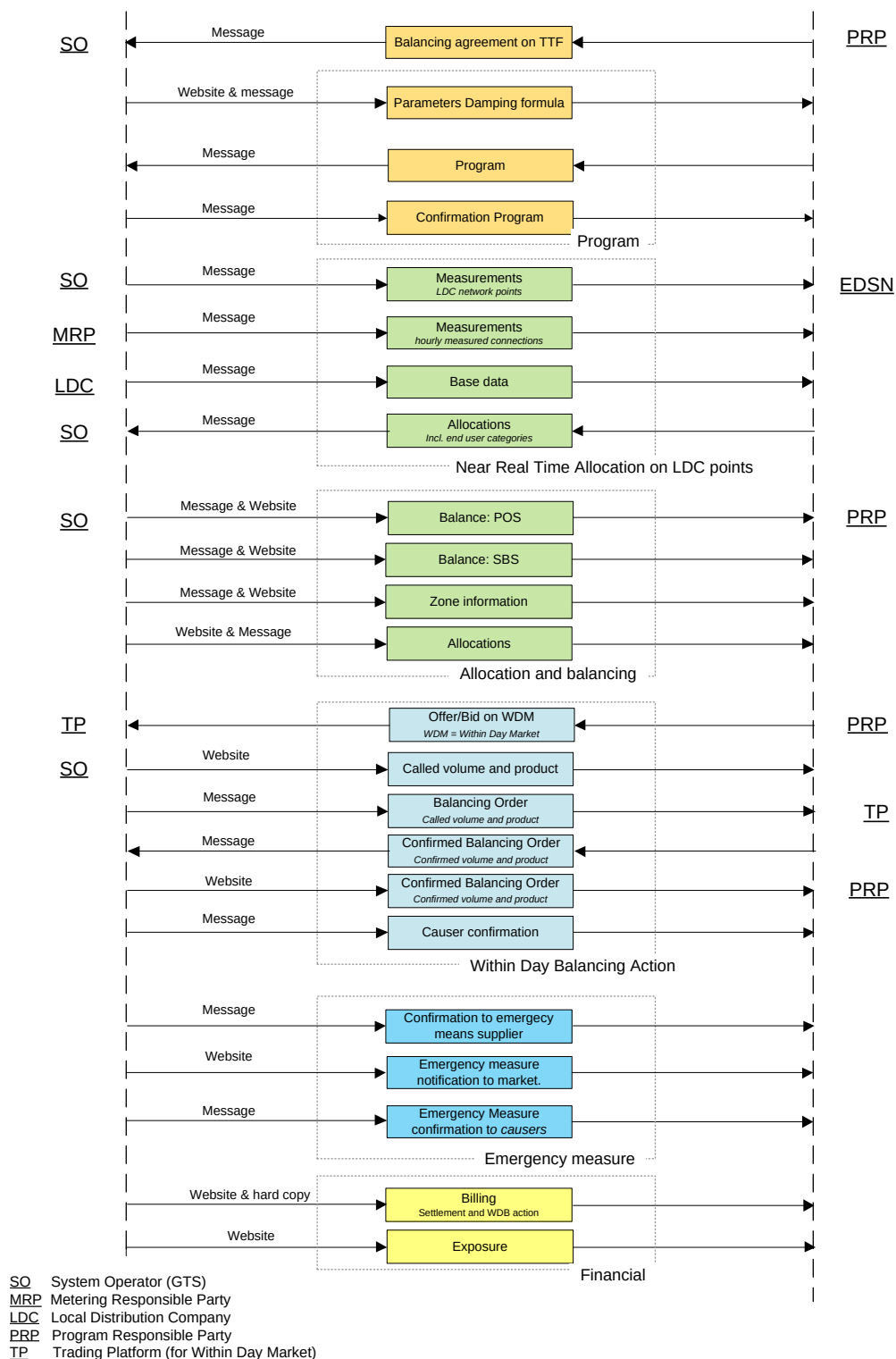
4. For all Edigas messages where an amount (energy and or price) is given for a certain period, a period of a complete gasday is included in the message. For the hours where no amount is needed, a zero amount is given.
5. General header information Edigas messages.
A lot of the information that is exchanged in Edigas messages is the same for all messages. The specification of these attributes will be included in the MIG (technical message description).
6. Acknowledgement Edigas messages.
Edigas confirmation messages send by the SO 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 the SO. When a problem in receiving the confirmation message occurs, the PRP is responsible for taking action. Only the Activation of the Emergency Measure needs to be acknowledged. An acknowledgement contains the feedback of the receipt and a possible error codes. The exact error codes will be specified in the Edigas Code lists.
7. Identification
An Edigas document is unique for each combination of Issuer, Id and Version. If a document has more than one document type, the Id must be unique over all types. I.e. An exit program document and an entry program document must have an identification that is unique for both documents.

2.2.4 Examples

The message examples in this document are only for illustration purposes and serve to illustrate. The examples should not seen as or be used as message specifications and/or implementation.

3 Overview

In this chapter an overview is given of all information flows which are changing or are new. In the picture below the main part of the operational data flow is depicted.



Note: In the diagram the LDC sends base data to EDSN, to be used by CSS. This includes the CDS-operator sending base data to EDSN.

3.1 Processes and information flows

The processes are described in the Detail Process Models, see Referenced documents [2 t/m 4]¹. In this paragraph a short summary of each process is given and the related information flows are defined.

3.1.1 Process programme

The Program processing is described in [2] DPM Programme. The sub processes produce or process external information flows:

Process step	Information flow	From → To
1 Publish parameters damping formula	Parameters damping formula	SO → PRP
2 Submit program	Program	PRP → SO
3 Validate internal consistency	Acknowledgement Feedback on internal consistency validation.	SO → PRP
4 Confirm Program	Confirmation Program	SO → PRP

GTS publishes the parameters of the damping formula². 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.

3.1.2 Publish POS and SBS

The processing of the POS and SBS are described in [4] DPM Markted and allocation. The following processes produce or process external information flows.

Process step	Information flow	From → To
1 Publish POS	POS	SO → PRP
2 Publish SBS	SBS	SO → PRP

Each 5-minutes the Portfolio Imbalance Signal (POS) is calculated and published, containing the prediction of the running hour. The near real-time imbalance is used for the Settlement in combination with the Off-line imbalance that is defined after the processing of the accountable measurements and allocations. The POS is also used for defining the SBS (sum of POSses) and the division of volume in case of a within day balancing action call or an Emergency call. The SBS is also calculated and published each 5-minutes, containing the prediction of the running hour.

¹ The underneath global descriptions of the process is just for illustration purposes, the exact process is described in the DPM.

² See the DPM for the exact timing constraints.

3.1.3 Process Within Day Balancing Action

The processing of the Within Day Balancing Action is described in [3] DPM Within Day Balancing Action process. The following processes produce or process external information flows.

Process step	Information flow	From → To
1 Publish Balancing Action volume and product	Balancing Action order (volume and product)	SO → WDM SO → PRP
2 Obtain called volume and product from WDM Trading Platform	Send order to WDM Trading Platform Confirmation of WDM order	SO → WDM WDM → SO
3 Submit Balancing Action confirmations to causers	Confirmation of Balancing Action volume to the causers	SO → PRP

At some moments when the prognosis of the SBS at the end of the current hour is outside the defined borders, GTS triggers the Within Day Balancing Action. GTS will also publish the WDM order (via web screens).

A Within Day Market Order is made by GTS to the WDM Trading Platform to make the necessary quantities available.

The quantity that is ordered from the WDM is divided pro rata to the 'causers' (the PRP with a POS with an equal direction to the SBS). This is done with a CauserConfirmation (on a specific virtual networkpoint)

3.1.4 Process Emergency Call

The processing of the Emergency Measure Call is described in [3] DPM Within Day Balancing Action process. The following processes produce or process external information flows.

Process step	Information flow	From → To
1 Publish Emergency call	Emergency Measure Publication	SO → PRP
2 Submit Emergency Activations to the suppliers	Emergency Measure Supplier Activation Acknowledgement Emergency Measure Confirmation to Suppliers	SO → PRP PRP → SO SO → PRP
3 Submit Emergency gas confirmations to causers	Emergency Measure Confirmation to causers	SO → PRP

At some moments when the prognosis of the SBS at the end of the current hour is outside the defined border and if there are no means available to solve the imbalance in time, GTS does an emergency call.

A number of activations to the suppliers of emergency means are called to make the necessary quantities available.

The quantity that is called is divided pro rata to the causers. The PRP's with a POS with an equal direction of the SBS. This is done with a Emergency Measure Confirmation to causers (on the virtual Networkpoint Emergency Clearing point).

3.2 Communication

For the information flows, the following means of communication will be used:

- A. Edigas messages³ via:
 - 1. Internet/AS2 using preferable EASEE-gas certificates (preferred protocol) or;
 - 2. ISDN/FTP (supported for current users up to March 1st 2014).
 Protocol: Edigas version 4.0 or higher⁴: XML (Edifact type messages are not supported).
- B. GTS websites (web screens).
 - 1. Private: Web screens ("Gasport" portal).
 - 2. Public: The public GTS website.
 Exact content and layout is not part of this DPM document.
- C. EDSN XML messages (webservices). XML via internet, using Verisign certificates.
- D. GTS XML messages (webservices). XML via internet, using Verisign certificates.

In the overview below the types of communication are mapped to the message or information group.

Message	Contents	Communicatie type
Program	Day ahead prognoses	A.
Confirmation Program	Acknowledgement of Program by GTS	A.
Confirmation emergency means	Call of GTS to use Bid Price Ladder Offer(s) to correct a imbalance in the network, with Quantity and Price	A.
Confirmation Within Day Balancing Action	Confirmation with quantity and Price to Causers	A.
POS (Portfolio Imbalance Signal)	Contains the Imbalance of the Portfolio of a PRP	B-1 C.
SBS (System Balance Signal)	Contains the total system balance	B-1 B-2 C.
Balancing agreement	Message of an agreed balancing agreement, sent in by both parties in the balancing relation.	A.
<i>All other allocation and measurement downloads</i>	Near real time and accountable allocation and measurement data.	D. GTS XML webservice

⁴ The acknowledgement message (ACKNOW) will be version 5.0 because this version contains the right identification of the original message (including version nr). Besides this, the Control cannot be used in XML, this control is incorporated into the APERAK version 5.0.

4 Content

4.1 Program

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

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.

Trigger

A Program Responsible Party will send an Entry and/or Exit or Trade Program for each gasday.

Design decisions

1. Type Program – Entry / Exit / Trade

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

2. 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 Programme.

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.

3. Use of Counter Portfolio GSTPEXIT

In Exit Programs a standard Counter Portfolio GSTPEXIT needs to be available. On this Portfolio the total Exit is specified, including the damping formula. The total of all other Counter portfolio's and the damping is equal to the quantity on GSTPEXIT.

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

4. A Differentiation of protected users

In an exit Program a distinction of the total exit needs to be made between protected users. For all PRP's with a B Licence this distinction is required. Therefore the Counter Portfolio GSTPPU is needed to be used to specify the total of Protected Users and the Counter Portfolio GSTPOTHER is used to specify the rest. In this case the GSTPEXIT or GSTPENTRY is not used.

5. A Differentiation of protected users for PRP with a balancing agreement

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

6. Networkpoint VPPV

The location on which the program is placed on is the VPPV (see [1]) and is always the same for all programs.

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

8. A Program must contain one Gasday.

9. 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 message, the second step validates the application of the damping parameters and will lead to a second acknowledgement message.

When a program is validated after publication of the damping parameters the validation will lead to one acknowledgement.

Content

The content of the Program is:

Attribute	Definition	Type	Domain	Example	M
Identification Program	Identification of the Program for each PRP for each gasday. Consists of a number to be defined by the PRP and a version if the Program is sent more than once for the gasday. This identification is referenced in the Program confirmation.	AN		PRODOC2009 0911000001 Version 01	Y
ValidityPeriod	The gasday(s) in which the Program is valid.	Date	Whole gasday	2009-05-30 2009-05-30	Y
TypeProgram	Entry, Exit or Trade Program.	AN	Entry Exit Trade	Entry	Y
Portfolio (in Edigas: Contract Reference)	Id of the portfolio where the Program is placed in. A PRP can have more than one portfolio. (In Edigas terminology this is called a Contract Reference)	AN	Issued by GTS	GSABC	Y
Networkpoint	The Networkpoint that is used for all Programs. This is always the VPPV (Virtual Point Program Responsible) for a program.	AN	Issued by GTS	VPPV	Y
For each Time interval and Counter portfolio the information underneath applies:					
Time interval	Whole hour(s) within the Gasday for which the information is valid.	Date	Hours within gasday	2009-05-30 4:00 2009-05-31 4:00	Y
Counter Portfolio (in Edigas : Account type)	Identification of the Portfolio (ContractCode) of the PRP counter party. Additionally the following Portfolio's are possible: GSTPEXIT, GSTPPU, GSTPPUB, GSTPOTHER, GSTPOTHERB and GSTPENTRY.	Portfolio	Issued by GT	GSXYZ	Y
Quantity	Total energy in kWh per hour of the Program in the Validity Period and for the Counter Portfolio	N17	0 decimals	40000	Y
Direction	The direction of the quantity. Input = Entry = "-" Output = Exit = "+"	AN	- Entry + Exit	-	Y

The acknowledgement can contain the following situations (the complete list will be specified in het Edigas MIG):

Program is not allowed for this contract	The Portfolio mentioned in the Program is not valid.
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).

4.1.1 Examples messages: Programs

1. Program – Entry (no trade)

ValidityPeriod 06-05-2009 04:00 - 07-05-2009 04:00 (UTC)
 TypeProgram Entry
 Portfolio GSABC
 Networkpoint VPPV

Counter Portfolio	Time interval	Quantity
GSTPENTRY*1*	04:00-08:00	-100000
	08:00-09:00	-100000
GSABC*2*	..	..
	02:00-03:00	-100000
	03:00-04:00	-100000
	04:00-08:00	100000
	08:00-09:00	100000
	..	..
GSXYZ	02:00-03:00	100000
	03:00-04:00	100000

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 06-05-2009 04:00 - 07-05-2009 04:00 (UTC)
 TypeProgram Exit
 Portfolio GSABC
 Networkpoint VPPV

Counter Portfolio	Time interval	Quantity
GSTPEXIT*1*	04:00-08:00	115000
	08:00-09:00	126000
GSABC*2*	..	..
	02:00-03:00	123000
	03:00-04:00	156000
	04:00-08:00	-100000
	08:00-09:00	-100000
	..	..
GSXYZ	02:00-03:00	-100000
	03:00-04:00	-100000
	04:00-08:00	-20000
	08:00-09:00	-30000
	..	..
	02:00-03:00	-20000
GSXYZ	03:00-04:00	-50000

1

GSTPEXIT portfolio is the total of all Exits without damping. The difference between GSTPEXIT 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 Gasday 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	GSABC					
Networkpoint	VPPV					

Counter Portfolio	Time interval	Quantity
GSA	04:00-08:00	120000
	08:00-09:00	130000
	..	..
	02:00-03:00	120000
	03:00-04:00	150000
GSB	04:00-08:00	-120000
	08:00-09:00	-130000
	..	-120000
	02:00-03:00	-120000
	03:00-04:00	-150000

4.2 Program Confirmation

Confirmation from GTS to the PRP that the program is processed. Contains also information about the possible errors.

Purpose

Give 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

1. 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.

2. Feedback of the total transferred from the VPPV.

For an Exit program this is placed on a specific portfolio: GSTPVPVEN

For an Entry program this is placed on a specific portfolio: GSTPVPVEX

For an Exit program this is placed on the specific portfolio's: GSTPVPVEN and GSTPVPVEX.

3. 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	Type	Domain	Example	M
ValidityPeriod	The gasday in which the Program is valid.	Date	One gasday	2009-05-30	Y
TypeProgram	Entry, exit or only Trade Program. An Entry program always contains the special Portfolio GSTPENTRY, but can also contain trade. This also accounts for the Exit program. A Trade program will contain only trade and the GSTPENTRY/GSTPEXIT portfolio's are not present.	Code	Entry Exit Trade	Entry	Y
Portfolio (in Edigas: Contract Reference)	Id of the portfolio (ContractCode) where the Transport Program is placed in. A PRP can have more than one portfolio.	AN	Issued by GTS	GSABC	Y
Networkpoint	The Networkpoint that is used for all Programs. This is always the VPPV (Virtual Point Program Responsible) for a program	AN	Issued by GTS	VPPV	Y
Confirmed Program	Identification of the Program that is confirmed	AN		PRODOC2009 0911000001 Version 01	Y
For each Time interval and Counter portfolio the information underneath applies:					

Attribute	Definition	Type	Domain	Example	M
Time interval	Whole hour(s) within the Gasday for which the information is valid.	Date Hour	Hour within Validity period	2009-05-30 4:00 2009-05-31 4:00	Y
Counter Portfolio (in Edigas : Account Type)	Identification of the Portfolio of the PRP counterparty. Additionally the following Portfolio's are possible: GSTPEXIT, GSTPPU, GSTPPUB, GSTPOTHER, GSTPOTHERB, GSTPENTRY and GSTPVPPVEN, GSTPVPPVEX, GSTPD	Portfolio	Issued by GTS	GSXYZ	Y
Quantity	Total quantity that is confirmed. This can be another value than the program. The Quantity is 0 when there is a mismatch.	N17	kWh/h	35000	Y
Reason	Reason code giving feedback about the confirmation. Ok if there are no errors or an error code if there are errors.	Code	Edigas code list 9321	70G	Y

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

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

4.2.1 Example messages: Program confirmations

1. Program – Entry (no trade)

ValidityPeriod	06-05-2009	04:00	-	07-05-2009	04:00	(UTC)
TypeProgram	Entry					
Portfolio	GSABC					
Networkpoint	VPPV					
Counter Portfolio	Time interval	Quantity	Reason			
GSTPENTRY	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	..	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-150000	OK			
	04:00-08:00	120000	OK			
	08:00-09:00	130000	OK			
	..	..	OK			
	02:00-03:00	120000	OK			
	03:00-04:00	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			
	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	..	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-150000	OK			
GSTPVPVEX	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	..	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-150000	OK			
	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	..	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-150000	OK			

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

2. Program – Exit (with trade and damping)

ValidityPeriod	06-05-2009	04:00	-	07-05-2009	04:00	(UTC)
TypeProgram	Exit					
Portfolio	GSABC					
Networkpoint	VPPV					
Counter Portfolio	Time interval	Quantity	Reason			
GSTPEXIT	04:00-08:00	115000	OK			
	08:00-09:00	126000	OK			
	..	..	OK			
	02:00-03:00	123000	OK			
	03:00-04:00	156000	OK			
	04:00-08:00	-100000	OK			
	08:00-09:00	-100000	OK			
	..	..	OK			
	02:00-03:00	-100000	OK			
	03:00-04:00	-100000	OK			
GSXYZ	04:00-08:00	-20000	OK			
	08:00-09:00	-30000	OK			
	..	..	OK			
	02:00-03:00	-20000	OK			
	03:00-04:00	-50000	OK			
	04:00-08:00	5000	OK			
	08:00-09:00	5000	OK			
	..	..	OK			
	02:00-03:00	-20000	OK			
	03:00-04:00	-50000	OK			
GSTPD *1*	04:00-08:00	5000	OK			
	08:00-09:00	5000	OK			
	..	..	OK			
	02:00-03:00	-20000	OK			
	03:00-04:00	-50000	OK			
	04:00-08:00	5000	OK			
	08:00-09:00	5000	OK			
	..	..	OK			
	02:00-03:00	-20000	OK			
	03:00-04:00	-50000	OK			

	08:00-09:00	4000	OK
	..	..	OK
	02:00-03:00	-3000	OK
	03:00-04:00	-6000	OK
GSTPVPVEN	04:00-08:00	120000	OK
	08:00-09:00	130000	OK
	..	..	OK
	02:00-03:00	120000	OK
	03:00-04:00	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	06-05-2009	04:00	-	07-05-2009	04:00	(UTC)
TypeProgram	Trade					
Portfolio	GSABC					
Networkpoint	VPPV					
Counter Portfolio	Time interval	Quantity	Reason			
GSA	04:00-08:00	120000	OK			
	08:00-09:00	130000	OK			
	..	..	OK			
	02:00-03:00	120000	OK			
	03:00-04:00	150000	OK			
GSB	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	-120000	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-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			
GSTPVPVEN	04:00-08:00	120000	OK			
	08:00-09:00	130000	OK			
	..	..	OK			
	02:00-03:00	120000	OK			
	03:00-04:00	150000	OK			
GSTPVPVEX	04:00-08:00	-120000	OK			
	08:00-09:00	-130000	OK			
	..	..	OK			
	02:00-03:00	-120000	OK			
	03:00-04:00	-150000	OK			

4.3 Causer Confirmations

As described in chapter 3, after a Within Day Balancing Action Trigger, all Causers receive information about the rearrangement of their POS. This leads to confirmations on administrative network points, to make the differentiation between the situations.

This message is used for the following information stream:

1. Causer Confirmation (CLRCON message).

Purpose

Divide the confirmed quantity from the Confirmed Within Day Market Order amongst the causers, this as a result from the Within Day Balancing Action Trigger.

Trigger

The Within Day Balancing Action Trigger as published.

Design decisions

1. Causers

The Causers receive a clearing confirmation message after the Within Day Balancing Action Trigger is published and the Confirmed Within Day Market Order is processed by the SO (GTS) as received from the Within Day Market Trading Platform.

2. Quantity

The quantity confirmed to the Causer will be assigned to the networkpoint *Balancing Virtual Point* with message type ALS.

3. Time interval

The Clearing Confirmation message is always complete, i.e. always contains all called hours in one gas day.

4. Price

The price as specified in the DPM Within Day Balancing Action process [3].

5. Acknowledgement

No acknowledgement is needed in response to the Causer Confirmations. The PRP knows already by the published Within Day Balancing Action Trigger (via Portal/website) that a Within Day Order has been made to the Trading Platform and which position the PRP has (causer). Based on this information the PRP needs to take action when none or too few confirmations have been received.

Content

Attribute	Definition	Type	Domain	Example	M
ValidityPeriod	The gasday in which the Bid Price Ladder Offer is valid	Date		2013-05-30 04:00 2013-05-31 04:00	Y
Message Type	The type of confirmation ⁵	AN	ALR	ALR	
Portfolio	Id of the portfolio of the causer. (in Edigas: Contract Reference)	AN	Issued by GTS	GSABC	Y
Networkpoint	Identification of the administrative Networkpoint: Balancing Virtual Point	AN	See Definition	BVP	Y
Currency	The currency of the price. Standard: Euro	Unit	Euro	Euro	Y
For each combination of ValidityPeriod, Quantity, Price					
Time interval	Whole hour(s) within the Gasday for which the information is valid.	Date		2013-05-31 4:00 2013-05-31 5:00	Y
Quantity	The quantity of the correction of the POS	N11.6	kWh/h	15000	Y
Direction	The direction of the Quantity	Code	- or +	Z02	Y
Price	The price of the quantity offered per unit. Can be positive and negative.	N1,4	+ and -	0,0020	Y

4.3.1 Example message: Causer Confirmation Within Day Order

Within Day Order at 13:20 (UTC)

Clearing Confirmation on BVP

ValidityPeriod 06-05-2009 04:00 - 07-05-2009 04:00 (UTC)

Portfolio GSABC
Networkpoint BVP
Currency Euro

	Time interval	Quantity	Price	
	04:00-08:00	0	-	
	08:00-09:00	150000	0,0099	
	09:00-04:00	0	-	

⁵ See the MIG BALMAN for the exact description.

4.4 Emergency Measure Supplier Activation

Assignment to PRP to make available a certain quantity at a certain price.

Purpose

Emergency call to compensate an imbalance in the System (BIDACT message)..

Trigger

An emergency situation at the SO.

Design decisions

1. Validity period

A confirmation will always cover a whole gasday. If the Call has occurred more than one time on that day, the activation of the previous hours are also part of this message. If an hour is called twice, the quantities for the activation are cumulative.

2. Quantity

The quantity that is called can be smaller than needed to fulfil the complete void of the emergency situation.

3. Price

The price as specified in the DPM Within Day Balancing Action process [3].

4. Acknowledgement

Each Emergency Measure Supplier Activation needs to be acknowledged by the PRP.

Content

Attribute	Definition	Type	Domain	Example	M
ValidityPeriod	The gasday in which the Bid Price Ladder Offer is valid	Date	One gasday	2013-05-30 04:00 2013-05-31 04:00	Y
Portfolio	Id of the portfolio. (in Edigas: Contract Reference)	AN	Issued by GTS	GSABC	Y
Currency	The currency of the price. Standard: Euro	Unit	Euro	Euro	Y
For each combination of Networkpoint, Lead time					
PhysicalNetworkpoint	Identification of the physical Networkpoint of the offer.	AN	Issued by GTS	Zuidwen	Y
Lead time	The lead time of the offer: Fast (30 minutes), Medium (90), Slow (150 minutes).	Time	30, 90, 150	30	Y
Direction	The direction of the quantity offered. - = Entry, + = Exit	AN	- or +	-	Y
For each combination Time interval, Direction, Price the sum of Quantity that is called.					
Time interval	Whole hour(s) within the Gasday for which the information is valid.	Date Hour	Hour within Validity period	2013-05-30 4:00 2013-05-30 5:00	Y
Price	The price of the quantity offered per unit. Can be positive and negative.	N1.4	+ and -	0,0091	Y
Quantity	The quantity requested.	N17	kWh/h	1500	Y

4.4.1 Example message: Emergency Measure Activation

Emergency measure Activation

ValidityPeriod 06-05-2009 04:00 - 07-05-2009 04:00 (UTC)

Portfolio GSABC

Currency Euro

Physical		Time interval		Price
Networkpoint	Lead time	*1*	Quantity Direction	2
UGS1	30	04:00-08:00	0	-
	90	08:00-09:00	150000 +	0,0093
	30	09:00-04:00	0	-

1 The time interval will always be a whole gasday, only the called offers are specified.

4.5 Emergency Measure Activation Confirmation messages

This message is used for the following information streams:

1. Confirmation to emergency means supplier (CLRCON message)..
2. Emergency Measure confirmation to causers (CLRCON message)..

As described in chapter 3, after an Emergency Measure Supplier Activation, all Causers receive information about the rearrangement of the POS. This leads to confirmations on administrative network points, to make differentiation between the situations.

Purpose

Divide the called quantity from the Emergency Measure Supplier Activation amongst the Causers.

Trigger

The Emergency Measure Supplier Activation based on an emergency situation at the SO.

Design decisions

1. Causers

In case of an emergency situation the causers will receive a confirmation on the Networkpoint NVP with message type ALT when the Emergency Measure Supplier Activation is made.

2. Emergency measure suppliers

In case of an emergency situation the confirmation to the suppliers will contain Networkpoint NAP with message type ALT.

3. Time interval

A confirmation is always complete, i.e. always contains all activated hours in one gas day.

4. Acknowledgement

No acknowledgement is needed on these Emergency Measure confirmation messages. The PRP knows already by the published Emergency Measure Activations (via Portal/website) that an Emergency Measure Activation has been made to the suppliers. The position (POS) is known by the PRP (causer). Based on this information the PRP needs to take action when none or too few confirmations have been received.

Content

Attribute	Definition	Type	Domain	Example	M
ValidityPeriod	The gasday in which the Bid Price Ladder Offer is valid	Date		2013-05-30 04:00 2013-05-31 04:00	Y
Message Type	The type of confirmation ⁶	AN	ALS, ALT	ALS	
Portfolio (in Edigas: Contract Reference)	Id of the portfolio where the BidPriceladderOffer is placed on.	AN	Issued by GTS	GSABC	Y
Networkpoint	Identification of the administrative Networkpoint: NAP Noodmaatregel Aanbieder Punt NVP Noodmaatregel Veroorzaker Punt	AN	See Definition	BPL Transfer point BPL-gas	Y
Currency	The currency of the price. Standard: Euro	Unit	Euro	Euro	Y
For each combination of ValidityPeriod, Quantity, Price					
Time interval	Whole hour(s) within the Gasday for which the information is valid.	Date		2013-05-31 4:00 2013-05-31 5:00	Y
Quantity	The quantity of the correction of the POS	N11.6	kWh/h	15000	Y
Direction	The direction of the Quantity	Code	- or +	-	Y
Price	The price of the quantity offered per unit. Can be positive and negative.	N1,4	+ and -	0,0020	Y

4.5.1 Example message: Emergency Measure Supplier Activation

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

Emergency Measure Activation Confirmation

ValidityPeriod 06-05-2013 04:00 - 07-05-2013 04:00 (UTC)

Portfolio GSABC
Networkpoint NAP
Currency Euro

	Time interval	Quantity	Price	
	04:00-08:00	0	-	
	08:00-09:00	150000	0,0099	
	09:00-04:00	0	-	

⁶ See the MIG BALMAN for the exact description.

4.6 Portfolio Imbalance Signal – POS

Information about the imbalance position of the Portfolio of the Program Responsible Party.

Purpose

Give the PRP information about the realized and predicted imbalance position of his Portfolio. This information will be used for settlement, bid ladder call and balancing the portfolio by the PR.

Trigger

A POS is determined every 5 minutes after the processing of the measurements and the calculation of the allocations. The trigger of the POS-message will be the request by the PRP.

Design decisions

1. The POS will be available for download and will not be send to each PRP. This option is more flexible than sending a predefined message and is equal to the current available downloads. The POS needs to be requested by the PRP by issuing the PortfolioID to GTS.
2. The POS contains the following data streams (the data streams are implemented as separate webservices):

Operational Accountable POS – This is information of a whole hour. This information is always final and is available between 15 and 20-minutes after the hour. The operational version is available until 24 hours after gashour.

Analysis Accountable POS – This is information of a whole hour. This information is always final and is available the calendar day after gasday. The analysis version can deliver 7 years of history.

Operational POS - Prognosis of the POS for the end of the running hour. Every 5⁷ minute of the end of the running hour the imbalance position is calculated based on the predicted hourly allocations and hourly program.

3. Several options will be possible in the request. These options will be equal to the current ones specified in the XML-downloads if relevant (Portfolio, Period, Start and Enddatetime). The Energy Unit (kWh) and Timebase (CET) will be fixed for the POS (and SBS).

⁷ This is the normal situation, in exceptional situations the information can be available later.

Contents POS

The POS message contains the following information:

Attribute	Definition	Type	Domain	Example	M
Portfolio	The Edigas code of the portfolio of which the POS is calculated.	AN	Issued by GTS	GSPV1	Y
Energy Unit	The energy unit used for all the energy amounts in the message.	AN	kWh	kWh	Y
Time Format ⁸	The time format used for all the time attributes in the message.	AN	CET	CET	Y
For each MeasurementDateTime					
Cycle DateTime Measurement	The Date and Time (in steps of 5 minutes) of the cycle of the measurements that form the basis for the POS.	Date-Time	Every 5 minutes	2009-05-30 13:05	Y
Accountable POS information					
DateTimePOS	The Date and Time in whole hours of the latest final POS position.	Date-Time	Whole hours	2009-05-30 12:00	Y
POS Position	The cumulative imbalance position (in kWh) of the latest hour based on the final allocations.	N12		120123	Y
Prognosis POS information					
DateTimePOS	The Date and Time in whole hours of the POS Position. This is always the end of the running hour ⁹ .	Date-Time	Whole hours	2009-05-30 14:00	Y
POS Position	The cumulative imbalance position (in kWh) on the end of the running hour based on the extrapolated allocations.	N12		76231	Y

⁸ Since ISO8601 is used for Date and time formats, the Time format CET is implemented as part of each Datetime as an offset to UTC (+1).

⁹ The values with a MeasurementDateTime in between the hours (e.g. 04:15) are predictions to the next whole hour (e.g. 05:00). The values with a MeasurementDateTime of a full hour (e.g. 05:00) are values of this hour (e.g. 05:00).

4.6.1 Example message: POS

Portfolio	Creation time (hh:mm:ss)	Cycle DateTime Measurement (Date= 2009-08-06)	Accountable		Prognosis	
			DateTimePOS	POS Position	DateTimePOS	POS Position
GSPV1	13:09:45	13:05	12:00	120	14:00	76
GSPV2	13:09:46	13:05	12:00	-65	14:00	-43
GSPV1	13:15:49	13:10	13:00	100	14:00	82
GSPV2	13:15:49	13:10	13:00	-53	14:00	-55
GSPV1	13:19:46	13:15	13:00	100	14:00	100
GSPV2	13:19:46	13:15	13:00	-53	14:00	-59
GSPV1	13:24:45	13:20	13:00	100	14:00	88
GSPV2	13:24:46	13:20	13:00	-53	14:00	-56
GSPV1	13:29:45	13:25	13:00	100	14:00	90
GSPV2	13:29:45	13:25	13:00	-53	14:00	-48
GSPV1	13:34:45	13:30	13:00	100	14:00	98
GSPV2	13:34:45	13:30	13:00	-53	14:00	-45
GSPV1	13:39:45	13:35	13:00	100	14:00	103
GSPV2	13:39:45	13:35	13:00	-53	14:00	-43
GSPV1	13:44:45	13:40	13:00	100	14:00	108
GSPV2	13:44:45	13:40	13:00	-53	14:00	-43
GSPV1	13:49:45	13:45	13:00	100	14:00	111
GSPV2	13:49:45	13:45	13:00	-53	14:00	-45
GSPV1	13:54:45	13:50	13:00	100	14:00	113
GSPV2	13:54:45	13:50	13:00	-53	14:00	-47
GSPV1	13:59:45	13:55	13:00	100	14:00	115
GSPV2	13:59:45	13:55	13:00	-53	14:00	-49
GSPV1	13:04:45	14:00	13:00	100	14:00	117
GSPV2	13:04:45	14:00	13:00	-53	14:00	-50
GSPV1	14:09:45	14:05	13:00	100	15:00	105
GSPV2	14:09:45	14:05	13:00	-53	15:00	-62
GSPV1	14:15:49	14:10	14:00	120	15:00	105
GSPV2	14:15:49	14:10	14:00	-50	15:00	-62
GSPV1	14:19:49	14:15	14:00	120	15:00	121
GSPV2	14:19:49	14:15	14:00	-50	15:00	-62
GSPV1	14:24:49	14:20	14:00	120	15:00	-9
GSPV2	14:24:49	14:20	14:00	-50	15:00	-9
GSPV1	14:29:49	14:25	14:00	120	15:00	-7
GSPV2	14:29:49	14:25	14:00	-50	15:00	0

Specific situations in the examples

The example is showing the POS for two Portfolio's (GSPRP1 and GSPRP2) for each 5 minute situation.

The Cycle DateTime Measurement is showing a whole hour (yellow) and the next 25 minutes in the next hour (green). An accountable stream is shown for the previous hour during the first 15 minutes (blue) because of the 'delay' of the steering signal.

The POS will be available at 5 minutes after the Cycle DateTime of the Measurements. This moment is mentioned in the examples: Publication DateTime. This information is not part of the POS message.

The following situations are explained:

Cycle time of measurements 13:05

The measurements of 13:00 -13:05 are processed and allocated and are available at the latest at 13:10. The allocations for RNB-Networkpoints are based on the steering signal of 12:00 hours.

The allocations are extrapolated delivering the Prognosis of 14:00 Hour (76 and -43).

The latest accountable POS position is still 12:00 hour (120 and -65) because the steering signal is not yet available.

Cycle time of measurements 13:10

The measurements of 13:00 -13:10 are processed and allocated and are available at the latest at 13:15. The allocations for RNB-Networkpoints are based on the steering signal of 13:00 hours.

These allocations are extrapolated delivering the Prognosis of 14:00 Hour (82 and -55).

The allocations of the CSS (steering signal) are processed and lead to the accountable POS of 13:00 hour (100 and -53).

Cycle time of measurements 14:00

The measurements of 13:00 -14:00 are processed and allocated and are available at the latest at 14:05. No extrapolation is needed because this is already a whole hour. (117 and -50). This is still a prognosis because the information of the steering signal is not yet available.

The latest accountable POS is still 13:00 hour.

4.7 System Balance Signal – SBS

The SBS gives information about the balance position of the total transport system. This is the total of all POS imbalance positions for all PRP's.

Purpose

Gives involved parties (GTS and PRP) information about the balance position of the total system so that they can take corrective actions.

Trigger

An SBS is determined every 5 minutes after the calculation of all POSses.

Design decisions

1. The SBS contains a prediction of the end of the next full hour (e.g. 08:00). No other hours ahead are predicted.
2. The SBS will be available for download and will not be sent to each PRP. This option is more flexible than sending a predefined message and is equal to the current available downloads. The SBS needs to be requested by the PRP by issuing the PortfolioID to GTS.
3. The zone information is available in the SBS.
4. The SBS contains the following data streams:
 - a. SBS Position
 - b. Zone information. Each zone and the absolute size of the zone is specified.
 - c. Helper and Causer information as part of the accountable stream. Is needed to calculate the possible impact of a Bid Price Ladder Call for the PRP.

The SBS can contain the following data streams (implemented as separate webservices):
Operational SBS – Prognosis of the SBS for the end of the current hour.

Operational Accountable SBS - This is information of a whole hour. This information is always final and is available between 15 and 20 minutes after the hour. The operational version is available until 24 hours after gas hour.

Analysis Accountable SBS - This is information of a whole hour. This information is always final and is available the calendar day after gasday. The analysis version can deliver 7 years of history.

5. Change in SBS
It is not needed to specify the change in SBS since the last calculation, the PRP's can calculate this themselves if needed. The change in SBS is defined as the (SBS on t) – (SBS on t-1).
6. The defined information for the SBS can (optionally) be combined with the already available allocations and POS in one download/service. The PRP will in most cases need the SBS in combination with the POS and allocations which form the underlying detailed information. Therefore an extra option will be added in the XML download of the Allocations to add the POS and/or SBS information.

Contents SBS

Attribute	Definition	Type	Domain	Example	M
For each MeasurementDateTime					
Cycle DateTime Measurement	The Date and Time (in steps of 5 minutes) of the cycle of the measurements that form the basis for the SBS.	Date-Time	Every 5 minutes	2009-05-30 4:20	Y
Energy Unit	The energy unit used for all the energy amounts in the message.	AN	kWh	kWh	Y
Time Format	The time format used for all the time attributes in the message.	AN	CET	CET	Y
Prognosis SBS					
SBSDateTime	The Date and Time in whole hours of the predicted SBS (for the end of the running hour).	Date-Hour	Whole hours	2009-05-30 5:00	Y
SBS Position	The cumulative system balance position at the end of the running hour ^{10, 11}	N12		-3.000.000	Y
Zone information. Occurs for each zone for each Hour.					
Name zone (Status)	The status of the zone (Dark green, Light green, Orange)	AN	Dark Green, Light Green, Orange	Dark Green	Y
Border max.	The max. position of the border of the zone.	N12		2.500.000	Y
Border min.	The min. position of the border of the zone.	N12		-2.500.000	Y
Helper and Causer information ¹²					
DateTime AccountableSBS	Date and time of the latest accountable SBS .	Date-Time	Whole hours	2009-05-30 4:00	Y
Accountable SBS	The accountable cumulative system balance position.	N12		-2.000.000	Y
SumHelpers	Total amount of the POS positions of the Helpers of the SBS of the last whole hour.	N12		-2.600.000	Y
SumCausers	Total amount of the POS positions of the Causers of the SBS of the last whole hour.	N12		600.000	Y

10 The values with a MeasurementDateTime in between the hours (e.g. 04:15) are predictions to the next whole hour (e.g. 05:00). The values with a MeasurementDateTime of a full hour (e.g. 05:00) are values of this hour (e.g. 05:00).

11 The SBS is in a certain zone when the SBS Position = < Border max and >= Border min for the first zone mentioned in the list. When the SBS Position is outside the Borders of the Orange zone, the Zone is Red.

12 This is the split between the helpers amount and causers amount of the realised SBS of the previous hour to be used to calculate the effect of a possible call of the Bid price ladder. This quantity can be different from the sum of the helpers and causers because some helpers can be left out of the SBS.

4.7.1 Example message: SBS

Cycle DateTime Measurement (Date= 2009-08-06)	Prognoses		Zones									Helpers/Causers		
	DateTimeSBS	System Balance Position	Name Zone	Border Min	Border Max	Name Zone	Border Min	Border Max	Name Zone	Border Min	Border Max	DateTime Last final POS	SumPOS Helpers	SumPOS Causers
13:05	14:00	33	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	12:00	-65	120
13:10	14:00	27	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:15	14:00	41	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:20	14:00	32	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:25	14:00	42	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:30	14:00	53	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:35	14:00	61	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:40	14:00	65	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:45	14:00	66	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:50	14:00	66	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
13:55	14:00	67	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
14:00	14:00	70	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
14:05	15:00	43	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	13:00	-65	120
14:10	15:00	43	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	14:00	-30	100
14:15	15:00	59	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	14:00	-30	100
14:20	15:00	-18	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	14:00	-30	100
14:25	15:00	-7	DarkGreen	-50	50	LightGreen	-60	60	Orange	-65	65	14:00	-30	100

4.8 Balancing Agreement

Purpose

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, a message will be developed that is used by both parties involved in the balancing relation (on the TTF). 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.

Trigger

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

Messaging: balancing agreement

Attribute	Definition	Type	Domain	Example	M
From party	The Edigascodes of the portfolio of the sender.	AN	Party Edig@s code	GS_GasCom	Y
For the sending portfolio, the the following attributes are added (repeating group).					
Balancing agreement with	The Edigascodes of the portfolio of the party with whom the sender has a balancing deal.	AN	Party Edig@s code	GS_GasInt	Y
Role ¹³	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-time from to date-time to.	Date		1-10-2010 06:00 – 1- 11-2010 06:00	Y
Category ¹⁴	End user category for which the balancing deal applies	AN3	G1a, G2a, G2c, GKV, GGV GXX GMN	G1a	Y
Percentage ¹⁵	The percentage of the unbalance that will be allocated	N	%	100%	Y
Minimum ¹⁶	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

¹³ A supplier role message will have to match with a receiver role message and vice versa.

¹⁴ Only one category can be mentioned.

¹⁵ If smaller than 100% (partial delivery), the minimum must be 0 (zero).

¹⁶ If the minimum is more than 0, the percentage must be 100% (no partial delivery).

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)

Own Use	The deemed amount that the balance receiving party delivers to the balance supplier.	N		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

1. All balancing deals will be allocated on the special TTF-B (Balancing) point.
2. The own use deals will be allocated (and nominated) on the regular TTF point.
3. 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.
4. 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.	

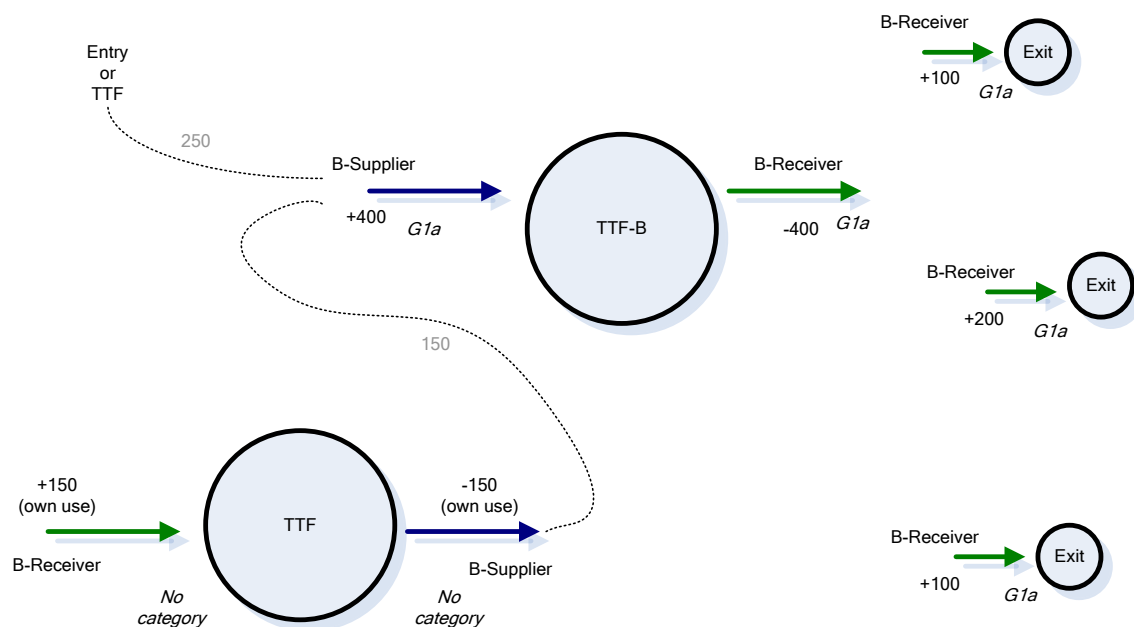
None of the above steps can produce a negative value, a negative value will result in a zero (0) value. Exception is of course step 4 in which the allocation direction is indicated by a + or - sign).

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

Examples

Balancing agreement with own use

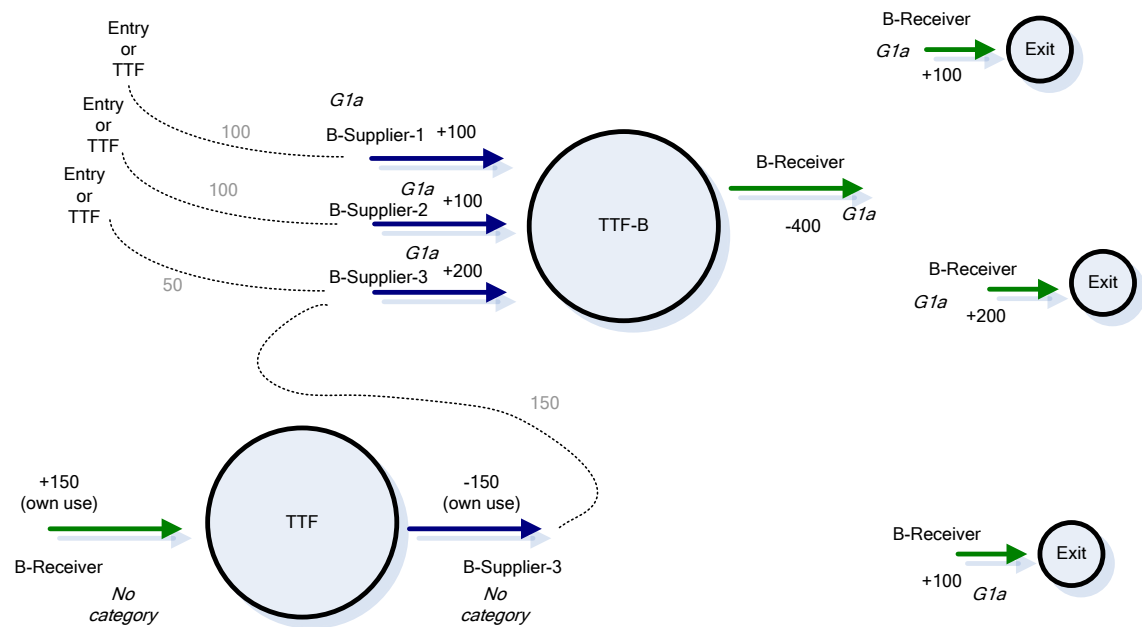
In the example below one balance supplier delivers gas to one balance receiver.



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	Sender:	B-Receiver
Agreement with:	B-Supplier-1	Agreement with:	B-Supplier-2
Role:	Receiver	Role:	Receiver
Validity period:	...	Validity period:	...
Category:	G1a	Category:	G1a
Percentage:	100%	Percentage:	100%
Minimum:	0	Minimum:	100
Maximum:	100	Maximum:	100

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

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 100¹⁷ (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.

¹⁷ If the minimum is greater than the input value (sum of exits) an amount of zero will be allocated to both portfolio's.

Appendix A - GTS B2B webservices

In this appendix a list of B2B webservices are given.

The following types of information are distinguished:

1. Prognosed
Actual near real-time information (5-minute values) predicting the realised volumes / energy at the end of the current hour. This information is needed for the actual steering activities of the PRP and consists of the SBS, POS and allocations.
2. Operational
Actual near real-time information (hourly values) with a history of max 36 hours. This information contains a.o. the SBS, POS and allocations. Besides this, actual measurements are available for Information contract users.
3. Analysis Accountable near real-time
Historic near real-time data: the hourly accountable values of near real-time information for analysis purposes. This information can be used by the PRP for validation of the settlement and consists of the accountable near real-time SBS, POS and allocations.
4. Analysis Accountable off-line
Historic information of offline data: the hourly values of offline accountable data for analysis purposes. This information can be used for validation of the settlement by the PRP and consists of the accountable off-line Imbalance and allocations. Besides this accountable measurements are available for Information contracts.

In the overview below the new Information Services are categorized to the types of information.

#	Information service	MessageType
#1	Publish Operational Portfolio Networkpoint	Portfolio Networkpoint (1)
#2	Publish Analysis Portfolio Networkpoint	Portfolio Networkpoint (1)
#3	Publish Operational Allocations	Operational Allocations (2)
#4	Publish Operational Networkpoint Measurements	Networkpoint Measurements (6)
#5	Publish Operational Accountable Allocations	Accountable Allocations (3)
#6	Publish Analysis Accountable Near Real-Time Allocations	Accountable Allocations (3)
#7	Publish Analysis Accountable offline Allocations	Accountable Allocations (3)
#8	Publish Operational Prognosis POS	POS (4)
#9	Publish Operational Accountable POS	POS (4)
#10	Publish Analysis Accountable POS	POS (4)
#11	Publish Analysis offline Imbalance	Imbalance (14)
#12	Publish Operational Prognosis SBS	SBS (5)
#13	Publish Operational Accountable SBS	SBS (5)
#14	Publish Analysis Accountable SBS	SBS (5)
#15	Publish Operational Bufferzones	Bufferzones (7)
#16	Publish Analysis Bufferzones	Bufferzones (7)
#17	Publish Operational Damping parameters	Damping parameters (8)
#18	Publish Analysis Damping parameters	Damping parameters (8)
#19	Publish Operational Run Measurements	Run Measurements (9)
#20	Publish Operational Run Measurements And Quality	Run Measurements And Quality (10)

#21	Publish Analysis Run Measurements And Quality	Run Measurements And Quality (10)
#22	Publish Operational WeatherInformation	WeatherInformation (11)
#23	Publish Analysis WeatherInformation	WeatherInformation (11)
#24	Publish Analysis Networkpoint RestAllocation	Networkpoint RestAllocation (12)
#25	Publish Analysis RunRestVolume	Run RestVolume (13)

Appendix B - Relation To Edigas messages

The relation between the messages as described in this DPM and the implementation in Edigas messages is specified below:

Message description	Edigas message	Message type
Program	Program document	PRODOC
Confirmation Program	Program confirmation	PROCON
Causer Confirmation	Clearing confirmation	CLRCON
Call emergency means	Bid activation	BIDACT
Emergency Measure Supplier Activation	Clearing confirmation	CLRCON
Acknowledgement message for Edigas messages	Acknowledgement	ACKNOW