DPM

Programme

Version management

Version	Name	Date	Status	Distribution
0.1	DPM Programme	15/06/2009	DRAFT	DPM The Programme Process sub-group Wholesale Gas Market Model Working Group
0.2	DPM Programme	10/09/2009	DRAFT	Wholesale Gas Market Model Working Group
1.0	DPM Programme	22/09/2009	FINAL	ALV NEDU
1.01	DPM Programme	14/10/2009	DRAFT	
1.02	DPM Programme	17/11/2009	DRAFT	
2.0	DPM Programme	07/01/2010	FINAL	ALV NEDU
3.0	DPM Programme	12/06/2013	Final Vastgesteld door ALV-NEDU 12 June 2013	All

Revisions

Version	Name
1.01	o APERAK for programme confirmations deleted from alternative scenarios.
1.02	o Codes used in the programmes have been added.
2.0	o Process graphics enlarged.
3.0	o Changes as a result of the update to the balancing regime and market model.

Source documents

| Name	Owner	Date	Status
Wholesale Gas Market Model Market Process Model	Wholesale Gas Market Model Working Group		Final

CONTENTS

1 Introduction

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

This Programme Process detail process model (DPM) further develops the process for programme responsible parties to create, submit and have their programmes returned.

Goal and scope
This DPM is a further development of the Wholesale Gas Market Model MPM version 2.0 dated 08/04/2009. The basic assumptions and definitions described in the MPM are also applicable to the DPM and will not be repeated in the DPM. However, supplementary definitions and more detailed versions of MPM basic assumptions will be included in the DPM.

The figure below shows the scope of the Programme Process DPM.
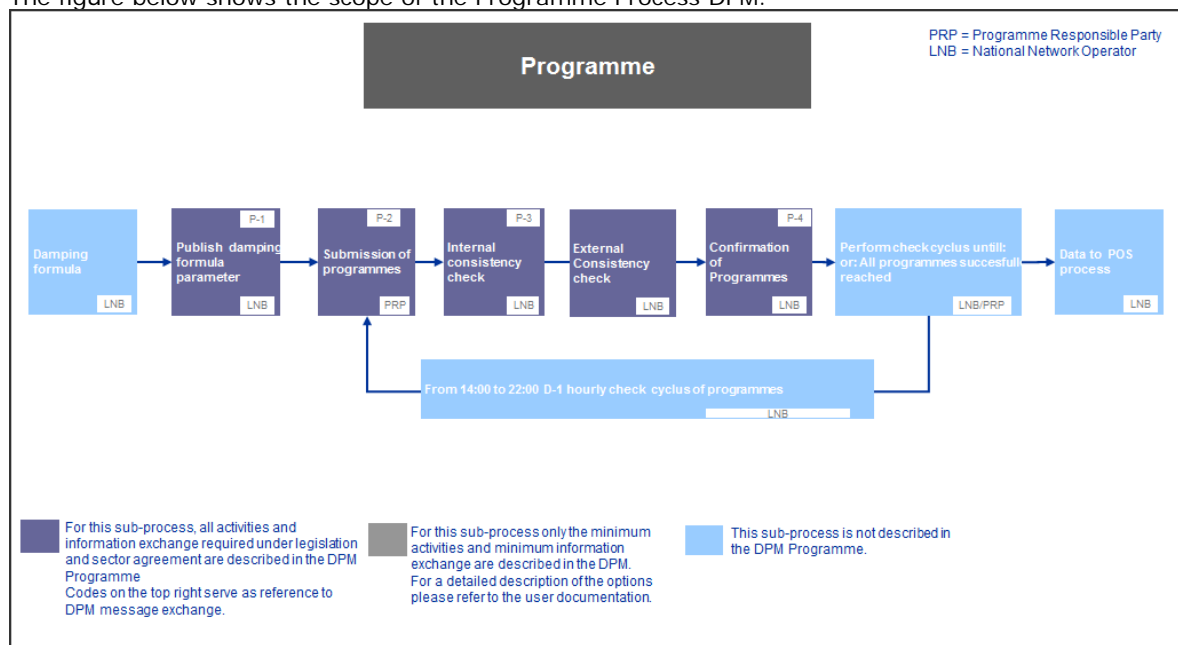
2 Basic assumptions and definitions

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

MPM assumptions relating to this DPM:

- Para. 4.3 Programme process

Supplementary DPM assumptions:

- The trader programme responsible party as specified in the MPM is not defined as a separate role in the Network Code or in the acknowledgement process of programme responsible parties. With regard to the submission of programmes, however, a separate programme will be defined for parties who are only active on the TTF.

- With reference to implementing the statutory task of the peak supply and the service of the balancing trading agreement the exit programme will contain more extensive information than is given in the MPM. This relates to a breakdown by exit for residential end users and other sectors.

- In the event of a communication failure between programme responsible parties and GTS an alternative communication route will have to be used for the programme messages and confirmations of receipt, e.g. fax. This means there may be a delay in processing the messages if the failure affects a number of programme responsible parties.

- All times are given in LET.

- All EDIG@S messages are sent via AS/2 on the internet.

- XML downloads are carried out via the internet.

- Only acknowledged programme responsible parties can use the processes described in this DPM.

File definitions

The structure of all EDIG@S messages conforms to the Message Implementation Guidelines for version 4.0 and higher messages, XML syntax. This information is available on the website of the EDIG@S working group (www.easee-gas.org).

The codes for message exchange referred to in the text can be found in the "Information Exchange" DPM or the above-mentioned MIG of the EDIG@S working group.
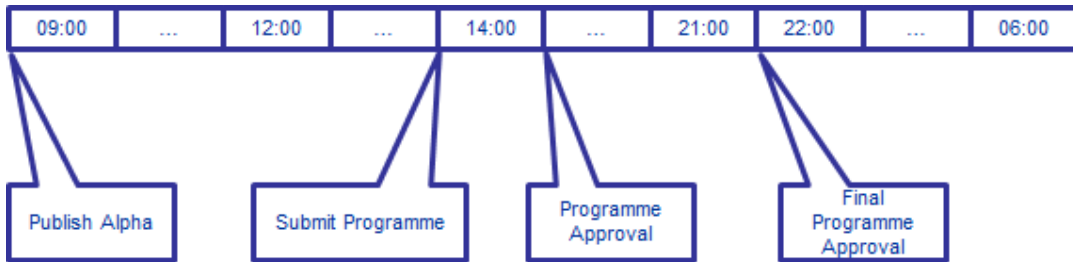
3 Overview of sub-processes

An overview of the sub-processes and the relationships between the sub-processes is given below. The figure is not intended to specify a chronological order but to indicate the causal relationships between the sub-processes and the use of data derived from a different sub-process.
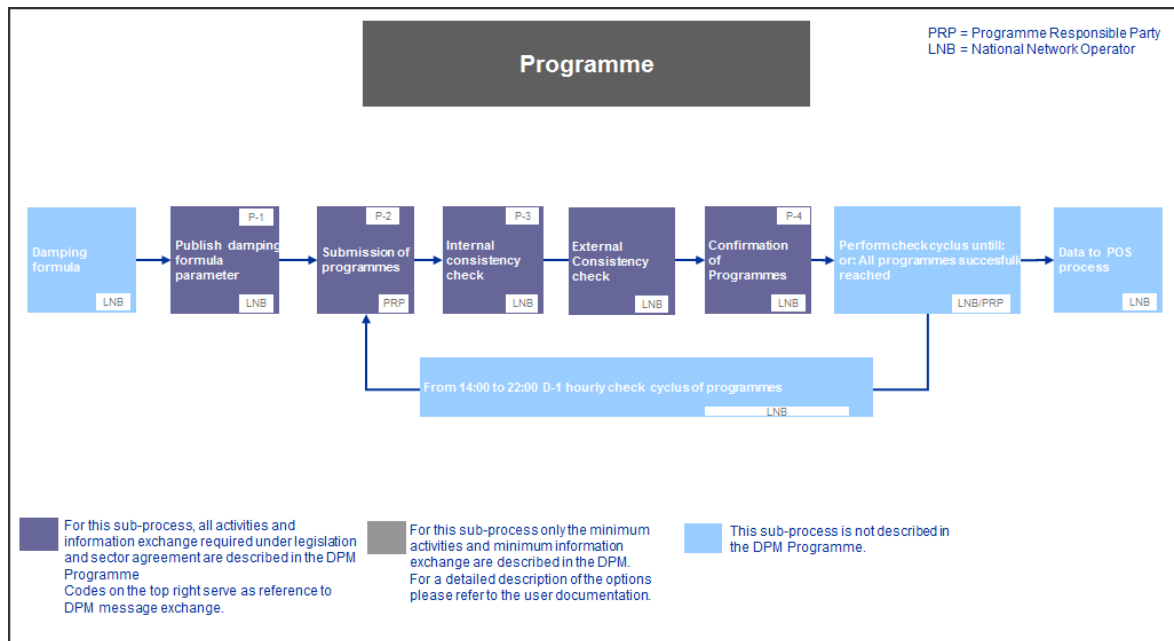
The interdependences between the sub-processes and the requirements relating to the elapsed time for the process are:
- GTS publishes the value for the alpha parameter for the damping formula on its website/portal by 09:00 D-1 at the latest.
- The programme responsible parties submit their programmes by 14:00 D-1.
- When a programme arrives at GTS, GTS replies with a confirmation of receipt.
- When a programme arrives at GTS, it is immediately checked for internal consistency. In the case of programmes which use the damping and arrive before the parameter is published, the result of the internal consistency check will often be negative. GTS communicates the result of the internal consistency check back to the submitting programme responsible party immediately.
- At 14:00 GTS carries out an external consistency check:
  - Defaults are set up for missing programmes.
  - Defaults are set up for internally inconsistent programmes.
  - Every programme responsible party receives programme confirmations containing the result of the external consistency check.
- If all the submitted programmes are both internally and externally consistent, the process is complete. No new programmes can be submitted.
- If not all the submitted programmes are both internally and externally consistent, GTS repeats the check process every hour from 18:00 until the deadline of 22:00 D-1 has been reached, and parties who have submitted no or incorrect programmes have default programmes confirmed.
- As long as the process is not yet complete and new programmes can still be submitted, it is not possible for programme responsible parties to change accepted transfers at the VPPV unilaterally. Only if both parties amend the transfer such that this can be accepted again is the old transfer changed.

Schematic timeline:

09:00	...	12:00	...	14:00	...	21:00	22:00	...	06:00

Publish Alpha

Submit Programme

Programme
Approval

Final
Programme
Approval

4 Description of sub-processes

4.1 Publish damping formula parameter (P-1)

Name of sub-process	Publish damping formula parameter
Description of sub-process	GTS specifies the alpha parameter for the damping formula for the following day every day by 09:00 and publishes this from 09:00 onwards on its public website/portal. The (historic) data can be accessed from the portal.
Roles	GTS
Performance objectives	- Timely provision of the parameter - Availability of the website for the programme responsible parties
Preconditions	- Known published damping formula
Post-conditions	- Parameter available on the website
Scenario	GTS has published the parameter. The programme responsible parties have access to the website and use the parameter to create their programmes.
Alternative scenarios	
Special requirements	

4.2 Submission of programmes (P-2)

Name of sub-process	Submission of programmes

Description of sub-process	On the day preceding the transmission day the programme responsible parties and GTS agree programme responsible parties' programmes. Programmes belong to a specific portfolio of a programme responsible party. There are three types of programme, as described in para. 4.3.1 of the MPM: an exit, an entry and a trading programme. These programmes contain data on the programme responsible party's expected entry, exit and trading flows. The number of programmes and which types have to be submitted for a portfolio depend on the activities which an individual programme responsible party has included in a portfolio, see MPM para. 4.3.4. Whether damping has to be applied in the programmes is specified at a portfolio level.
	
	General information on programmes submitted by programme responsible parties:
	– Programmes are submitted to GTS in the form of **PRODOC** EDIG@S messages.
	– Standard content (e.g. coding of sender/recipient, use codes) is specified in the "Information Exchange" DPM.
	– Each message contains all the information required for one whole gas day.
	– Each new message for a gas day supersedes any older message for that gas day.
	– The network point where programmes are submitted is the VPPV.
	– The type of programme is indicated by a code in the message.
	
	Entry programme
	– In an entry programme a programme responsible party specifies per hour the total physical entry volume for the relevant portfolio. The code for this is GSTPENTRY.
	– In an entry programme a programme responsible party includes for each party with whom he has a transfer of programme responsibility at the VPPV the volume per hour of this transfer. Each other party is identified by means of his portfolio code.
	
	Exit programme
	– In an exit programme a programme responsible party specifies per hour the total physical exit volume for the relevant portfolio broken down by the total residential end user supplies and other supplies. Two codes are used to specify the relevant volumes:
	  o GSTPPU for residential end users
	  o GSTPOTHER for other exits
	– In an exit programme a programme responsible party includes for each party with whom he has a transfer of programme responsibility at the VPPV

the volume per hour of this transfer. Each other party is identified by means of his portfolio code.

– In an exit programme a balance-supplying programme responsible party specifies the total of his balancing trading agreements on the TTF. These are also broken down into residential end users and others like his own physical exit, with the following codes specified
  o GSTPPUB for residential end users
  o GSTPOTHERB for other exits
– In an exit programme a programme responsible party as a balance-receiving party only specifies his own expected exit, broken down into residential end users and others, which is not covered by balance-supplying parties. Where a balance-receiving programme responsible party has concluded balancing trading agreements for his entire exit, this programme responsible party does not have to submit any daily programme.

Trading programme
– A programme responsible party only operating on the TTF submits a trading programme.
– In a trading programme a programme responsible party includes for each party with whom he has a transfer of programme responsibility at the VPPV the volume per hour of this transfer. Each other party is identified by means of his portfolio code.
– A gas exchange will submit a trading programme. In the external check, however, this is dealt with differently from the other trading programmes.

For each programme received, GTS sends a confirmation of receipt back to the submitting programme responsible party in the form of an **APERAK** message. This APERAK message contains information relating to the syntactical check on the message.

Roles	Programme responsible party (has to be acknowledged by GTS) GTS
Performance objectives	For programmes that are received GTS has to send an APERAK by return.
Preconditions	Publication of the alpha parameter by GTS. Communication with GTS is possible (prerequisite for acknowledgement).
Post-conditions	
Scenario	Programmes are submitted to GTS punctually via the usual communication route, and their receipt is confirmed.
Alternative scenarios	Programmes cannot be submitted to GTS punctually because of technical problems. Programmes can then be sent to GTS via an alternative communication route or, if this is not yet the last check cycle, it is accepted that the next check will show rejected programmes as a result. The confirmation of receipt takes place later or via an alternative communication route.
Special requirements	Older versions of EDIG@S (3.2 and earlier) are not supported.

4.3 Internal consistency check (P-3)

Name of sub-process	Internal consistency check
Description of sub-process	For submitted programmes which are found to be syntactically correct programme responsible parties will receive an **APERAK** message as a confirmation containing information relating to the internal consistency of the programme message. This is, therefore, a check on content rather than on form. The possible error codes are specified in the "Message Exchange" DPM. All programmes have to comply with the balance agreement applicable to the particular programme: – Exit programmes have to conform to the damping formula with the alpha parameter applicable to D for the relationship between the total exit and the net entry at the VPPV. – Entry programmes have to conform to an in=out relationship between the total entry and the net exit at the VPPV. – Trading programmes have to conform to an in=out relationship between the total entry and the total exit at the VPPV.

Roles	Programme responsible party GTS
Performance objectives	- For programmes that are received GTS has to send an APERAK by return.
Preconditions	– Publication of the alpha parameter by GTS. - Communication with GTS is possible.
Post-conditions	
Scenario	APERAK messages are sent punctually.
Alternative scenarios	No communication is possible between GTS and programme responsible party/parties because of technical problems. Result of internal consistency check is communicated via an alternative route or later.
Special requirements	Older versions of EDIG@S (3.2 and earlier) are not supported.

4.4 External consistency check

Name of sub-process	External consistency check

Description of sub-process	In order to be sure that the gas transmission system will be in balance the following day, GTS checks whether all the programmes match each other correctly.
	
	Any internally inconsistent programmes are included in the next step.
	
	GTS checks whether all the transfers of programme responsibility at the VPPV which the programme responsible parties have indicated match each other with regard to:
	– the specified other party
	– the specified volume
	– the time period relating to a specified volume
	– the direction of transfer
	– whether the transfers specified in the trading programme of a gas exchange are assumed to be correct.
	
	If two programme responsible parties specify a transfer at the VPPV which conforms to the above four criteria, this transfer is approved. If it does not conform, there is a mismatch. In the event of a mismatch:
	– the transfer is rejected
	– the transfer volumes for the period of the mismatch are set to zero.
	
	If a programme contains a rejected transfer, GTS amends the total entry, total exit and delta profile as follows:
	– Entry or exit programme: for each hour the physical entry or physical exit is made the same as the total of the approved transfers at the VPPV. Any damping for the programme is then automatically set to zero. The programme status is "rejected".
	– Trading programme: for each hour the lowest total of accepted transfers, entry and exit, is regarded as authoritative and the higher is changed to the same as the lower. In this way the programme is made internally consistent. The programme status is then "rejected".
	
	If all the transfers have been accepted, there are still two options:
	– If the programme is internally consistent:
	  o Entry or exit programme: the associated physical entry or exit is accepted. The programme status is "accepted".
	  o Trading programme: the programme status is "accepted".
	– If the programme is internally inconsistent or if the information relating to internal consistency is missing:
	  o Entry or exit programme: for each hour the physical entry or physical exit is made the same as the total of the accepted transfers at the VPPV. Any damping for the programme is then automatically set to zero. The programme status is "rejected".
	  o Trading programme: for each hour the lowest total of accepted transfers, entry and exit, is regarded as authoritative and the higher is replaced by the lower. In this way the programme is made internally consistent. The programme status is then "rejected".
	
	Zero programmes are set up for all missing programmes. For all hours of the gas day these programmes have an entry of zero in the case of an entry programme and an exit of zero in the case of an exit programme. For both types of

| | programmes and for trading programmes there are no transfers at the VPPV.

For each of a programme responsible party's programmes the result of the check process is:
– a series of 24 hourly values for his total entry
– a series of 24 hourly values for his total exit
– a series of 24 hourly values for his delta profile, the difference between the total entry and the total exit. This is determined using the formula: exit + entry + delta = 0 where exit has a positive value and entry a negative value.

Together these three series form the balance agreement associated with a programme against which GTS will test the implementations at D and base the POS of the programme responsible party. These values are confirmed to the programme responsible party in the next process. |

Roles	GTS
Performance objectives	- External check must be completed within the hour.
Preconditions	None
Post-conditions	None
Scenario	- First external consistency check takes place at 14:00. - Thereafter an hourly process until all the programmes have been accepted or the deadline of 22:00 D-1 has been reached. - Once the deadline has been reached, the values then determined for the entry, exit and delta profile are applicable as the balance agreement between GTS and the relevant programme responsible party for that programme.
Alternative scenarios	None
Special requirements	None

4.5 Confirmation of programmes (P-4)

Name of sub-process	Confirmation of programmes
Description of sub-process	The programme responsible parties receive the result of the external check process from GTS in the form of a confirmation message.

General information on programme confirmations:
– Programme confirmations are sent by GTS in the form of **PROCON** EDIG@S messages.
– Standard content (e.g. coding of sender/recipient, use codes) is specified in the "Message Exchange" DPM.
– Each message contains all the information required for at least one whole gas day.
– Each new message for a gas day supersedes any older message for that gas day.

The confirmation message sent as the last programme for a gas day constitutes an imbalance agreement between GTS and the relevant programme responsible party for that programme.

The PROCON message contains a mirror image of the PRONOM message. Any differences resulting from internal or external consistency checks are clearly identified by means of status codes. For each hour an indication is given for each transfer at the VPPV, physical exit or physical entry whether this is accepted or rejected. The PROCON message also contains additional information, i.e. the total hourly values for the entry, exit and delta profile determined during the external check step. The codes used to specify these values vary with the programme type:
– The following codes are added to the exit programme:
    o GSTPEXIT for the total exit
    o GSTPD for the delta profile
    o GSTPVPPVEN for the net entry at the VPPV
– The following codes are added to the entry programme:
    o GSTPD for the delta profile
    o GSTPVPPVEX for the net exit at the VPPV
– The following codes are added to the trading programme:
    o GSTPVPPVEX for the total exit at the VPPV |

	o GSTPD for the delta profile o GSTPVPPVEN for the total entry at the VPPV The status of the programme will also be reported in the message. The status options are: - Accepted. The programme and all associated programmes are approved. No further action by the programme responsible party necessary. - Accepted with remarks. The programme is accepted. This does not yet apply to any associated programme. No further action by the programme responsible party necessary. - Rejected. The programme is rejected. The programme responsible party has to submit a new improved version. Once all the programmes have been approved (status: accepted), the programme process is complete and no more new programmes may be submitted. As long as there are still programmes with the status Rejected/Accepted with Remarks, all the programme responsible parties can still update their programmes. However, transfers at the VPPV which have been accepted can only be updated if both parties forward new values for the transfer.
Roles	GTS Programme responsible party
Performance objectives	-
Preconditions	- Completed external check process
Post-conditions	- The confirmation message sent as the last programme for a gas day constitutes a balance agreement between GTS and the relevant programme responsible party for that programme.
Scenario	Programme confirmations are sent punctually and via the usual communication route between GTS and programme responsible parties.
Alternative scenarios	Programme confirmations cannot be submitted punctually to the programme responsible parties because of technical problems. Programmes can then be sent via an alternative communication route or, if this is not yet the last check cycle, it is accepted that the confirmations will only be sent at the next round of checks.
Special requirements	Older versions of EDIG@S (3.2 and earlier) are not supported.

Example of programme message with balancing trading agreement

		Entry Programme		
Type:		Entry Programme		
Submitting PRP:		PRP0023		
			VPPV	
		Entry 1	PRP0023	balans
6:00	7:00	-150000	150000	0
7:00	8:00	-150000	150000	0
8:00	9:00	-150000	150000	0
9:00	10:00	-150000	150000	0
10:00	11:00	-150000	150000	0
11:00	12:00	-150000	150000	0
12:00	13:00	-150000	150000	0
13:00	14:00	-150000	150000	0
14:00	15:00	-150000	150000	0
15:00	16:00	-150000	150000	0
16:00	17:00	-150000	150000	0
17:00	18:00	-150000	150000	0
18:00	19:00	-150000	150000	0
19:00	20:00	-150000	150000	0
20:00	21:00	-150000	150000	0
21:00	22:00	-150000	150000	0
22:00	23:00	-150000	150000	0
23:00	0:00	-150000	150000	0
0:00	1:00	-150000	150000	0
1:00	2:00	-150000	150000	0
2:00	3:00	-150000	150000	0
3:00	4:00	-150000	150000	0
4:00	5:00	-150000	150000	0
5:00	6:00	-150000	150000	0

		TTF				VPPV			
Type:		Exit Programme							
Submitting PRP:		PRP0023							
		Exit House	Exit Rest	Bal Trade	Bal Rest	PRP0023	PRP0001	PRP0002	PRP0003
6:00	7:00	22000	18000	20000	30000	-150000	25000	60000	-25000
7:00	8:00	22000	18000	20000	30000	-150000	25000	60000	-25000
8:00	9:00	22000	18000	20000	30000	-150000	25000	60000	-25000
9:00	10:00	22000	18000	20000	30000	-150000	25000	60000	-25000
10:00	11:00	22000	18000	20000	30000	-150000	25000	60000	-25000
11:00	12:00	22000	18000	20000	30000	-150000	25000	60000	-25000
12:00	13:00	22000	18000	20000	30000	-150000	25000	60000	-25000
13:00	14:00	22000	18000	20000	30000	-150000	25000	60000	-25000
14:00	15:00	22000	18000	20000	30000	-150000	25000	60000	-25000
15:00	16:00	22000	18000	20000	30000	-150000	25000	60000	-25000
16:00	17:00	22000	18000	20000	30000	-150000	25000	60000	-25000
17:00	18:00	22000	18000	20000	30000	-150000	25000	60000	-25000
18:00	19:00	22000	18000	20000	30000	-150000	25000	60000	-25000
19:00	20:00	22000	18000	20000	30000	-150000	25000	60000	-25000
20:00	21:00	22000	18000	20000	30000	-150000	25000	60000	-25000
21:00	22:00	22000	18000	20000	30000	-150000	25000	60000	-25000
22:00	23:00	22000	18000	20000	30000	-150000	25000	60000	-25000
23:00	0:00	22000	18000	20000	30000	-150000	25000	60000	-25000
0:00	1:00	22000	18000	20000	30000	-150000	25000	60000	-25000
1:00	2:00	22000	18000	20000	30000	-150000	25000	60000	-25000
2:00	3:00	22000	18000	20000	30000	-150000	25000	60000	-25000
3:00	4:00	22000	18000	20000	30000	-150000	25000	60000	-25000
4:00	5:00	22000	18000	20000	30000	-150000	25000	60000	-25000
5:00	6:00	22000	18000	20000	30000	-150000	25000	60000	-25000

Match between the programmes of this PRP

Programme 0-1: Entry and exit programme with trading transactions and balancing trading agreement