



**Monitoring Report 2010
on
capacity allocation mechanisms and
congestion management procedures
at selected interconnection points**

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INFORMATION PAGE

Abstract

This document E10-GMM-11-05 is an ERGEG document on Monitoring report on capacity allocation mechanisms and congestion management procedures in 2010 at selected interconnection points.

The present report sums up and analyses the outcome of a monitoring exercise carried out by ERGEG in early summer 2010 on capacity allocation mechanisms and congestion management procedures at selected interconnection points in Europe. The survey was carried out on the basis of provisions from Regulation (EC) 1775/2005. ERGEG was asked by the European Commission to do this analysis as an input for the comitology procedure on revising Chapter 2 of Annex I of Regulation (EC) 715/2009.

Target Audience

Energy suppliers, traders, gas/electricity customers, gas/electricity industry, consumer representative groups, network operators, Member States, academics and other interested parties.

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Related Documents

- “ERGEG principles on Capacity allocation and congestion management in European gas transmission networks“, ERGEG, December 2009, Ref. E09-GNM-10-03
- “Pilot Framework Guideline on Capacity Allocation on European Gas Transmission Networks – Impact Assessment“, ERGEG, December 2009, Ref. E09-GNM-10-06
- “Recommendations for Guidelines adopted via comitology procedure on Congestion Management Procedures on European Gas Transmission Networks“, ERGEG, December 2009, Ref. E09-GNM-10-07
- “Recommendations for Guidelines adopted via comitology procedure on Congestion Management Procedures on European Gas Transmission Networks – Impact Assessment“, ERGEG, December 2009, Ref. E09-GNM-10-04
- “Final Pilot Framework Guideline on Gas Capacity Allocation (CAM) “, 10 June 2010 Ref. E10-GWG-66-03
- “Evaluation of Comments received on Public Consultation on the Framework Guideline on Gas Capacity Allocation“, 29 June 2010, Ref. E10-GWG-67-03

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1. Executive summary

The present report sums up and analyses the outcome of a monitoring exercise carried out by ERGEG in early summer 2010 on capacity allocation mechanisms (CAM) and congestion management procedures (CMP) at selected interconnection points (IPs) in Europe. The survey was carried out on the basis of provisions from Regulation (EC) 1775/2005. ERGEG was asked by the European Commission to do this analysis as an input for the comitology procedure on revising Chapter 2 of Annex I of Regulation (EC) 715/2009

In order to carry out this fact-finding mission 21 European IPs have been selected and a questionnaire was circulated among National Regulatory Authorities (NRAs) and Transmission System Operators (TSOs). 15 NRAs and 20 TSOs were asked to provide information on, for example, CAM in place at IPs, the management of contractual congestion, nomination procedures applied or the existence of secondary market trading facilities. 11 out of 20 TSOs and 13 out of 15 NRAs actively participated in the survey. Basic information on procedures in place was extracted from publicly available documents (network codes, terms and conditions, standard contracts) for those TSOs that did not respond to the survey. ENTSO-G was informed about the monitoring exercise and invited to submit information.

The main topics addressed in this monitoring exercise were the occurrence of contractual or physical congestion, applied CAMs, procedures applied in case of congestion, the existence and functioning of a secondary market and the harmonization of CAMs and CMPs at IPs. The survey also aimed at gaining a better understanding of ways to improve these mechanisms according to responses given by TSOs or NRAs.

The main conclusion drawn from this consultation include the need for strengthening harmonisation of procedures at IPs, the fact that the functioning of secondary market trading facilities is limited and that better communication and cooperation between NRAs, TSOs and market participant are needed.

The assessment of CAMs in place shows that the procedures vary considerably from one point to another. First Come First Served (FCFS) is used predominately and auctions are only applied in a few cases. The variety of mechanisms constitutes an obstacle for the harmonisation of procedures in the European gas market and, thus is perceived as a problem by a number of TSOs and NRAs.

Furthermore, the survey showed that for half of the surveyed IPs the EASEE-gas common business practices for nomination procedures are not used and thus, nomination procedures differ regarding nominations or re-nominations deadlines.

According to Article 5 (1) of Regulation (EC) 1775/2005 TSOs shall maximise the level of available capacities, whereas about 2/3 of the TSOs stated that they invest in their network to do so, measures which increase the efficient use of existing capacity are only applied by a minor number of TSOs.

Only a small number of TSOs provided information on their view regarding potential obstacles to fully functioning CAMs.

The assessment of congestions at IPs and the measures taken to resolve the problems linked thereto differ widely throughout Europe. In addition the existence of contractual congestion is not assessed in the same way by NRAs and by TSOs, whereas NRAs answered that for 46.2% of the surveyed IPs contractual congestion exists. Physical congestion compared to contractual congestion seems to be a lesser problem.

Harmonised CMPs are essential to well functioning gas markets in the EU. Common CMPs should aim at maximising of technical capacities and available capacities on a firm basis. The survey also shows that little information is available on how the reservation for short-term capacity products is achieved.

About half of the answers received from NRAs asked for more effective UIOLI and more effective UIOSI, whereas only a very low percentage of participants from TSOs asked for more effective UIOLI and only a few more for more effective UIOSI. However, a wider use of long-term UIOLI procedures appears as a reasonable possibility to reduce the problems linked to congestion for users. Further possibilities include the surrender of booked capacity and making available more firm day-ahead capacity.

The harmonisation of contracts as well as CAMs and CMPs at both sides of IPs would decrease shipper's transaction costs and is an essential element on the path to the establishment of the internal gas market. Respondents could affirm for only less than 1/4 of the selected IPs that there are harmonised procedures in place at the moment.

As a general conclusion it can be stated that due to the different answers received from TSOs and NRAs there is a further need for harmonisation and for common definitions.

Three key priorities were identified in this survey in order to improve the efficiency of CMPs and CAMs at IPs in Europe:

- i. **Improve harmonisation of CAM and CMP at IPs**
- ii. **Functioning of secondary market trading facilities is limited**
- iii. **Increase the coordination and cooperation of TSOs and NRAs**

The pilot framework guideline on CAM provides significant steps towards these objectives with the harmonisation of CAMs in Europe (implementation of auctions), the reinforcement of the cooperation between TSOs and the standardisation of the gas day. Auctions will furthermore provide appropriate economic signals for the efficient use of capacities and facilitate investment in new infrastructure, where necessary.

2. Scope and method of the survey

With the survey on CAMs and CMPs, ERGEG continues its monitoring activities with regard to the implementation of specific aspects of Regulation (EC) 1775/2005 following a request expressed by the European Commission (EC) at the Madrid Forum in November 2008. The EC specified its request in late 2009 when asking ERGEG to monitor CAMs and CMPs in 2010, a task which was subsequently included to ERGEG's 2010 work programme (GWG-9) and was undertaken by its Gas Market Monitoring Task Force (GMM TF). ERGEG produced the present report in order to provide the EC with a sound basis for deliberation on the proposal for revising the existing congestion management guidelines, annexed to Regulation (EC) 715/2009 and the impact assessment related thereto.

Submissions to the survey were possible from 14 June 2010 until the end of July (duration: 6 weeks). The initial intention was to provide the EC with an update at the 18th Madrid Forum held in autumn 2010, but the time schedule had to be modified because of belated input from respondents.

The main objective of this report is to assess the key features of the mechanisms used for the allocation of capacities and of the procedures applied at selected IPs in Europe in case of physical or contractual congestion. The survey was carried out on the basis of provisions of Regulation (EC) 1775/2005.

For the analysis, two different target audiences have been surveyed, namely: NRAs and TSOs involved in the operation of the 21 IPs selected for the survey. The selection of the IPs for the survey was done according to their capacity and location with a view to represent the possible situation of all IPs in Europe. The decision was taken in accordance with the EC to achieve geographical balance and to cover a large share of capacities passing through IPs.

The survey consisted of two almost identical questionnaires with 38 questions (question 4.7.1 on the actual use of secondary trading facilities was only posed to TSOs). Participants were asked to respond via the online tool on the ERGEG website. The exact wording and structure of the questionnaire are annexed to this report (Annex 1).

ERGEG invited the following NRAs and TSOs to submit responses concerning the following IPs:

Table 1: IPs covered by the survey¹

IP selected	Country	Regulator	TSO
Baumgarten	Austria	Energie-Control GmbH - E-Control	OMV Gas GmbH*
	Slovakia	Regulatory Office for Network Industries- RONI	eustream, a.s.
Oberkappel	Austria	Energie-Control GmbH - E-Control	BOG GmbH*
	Germany	Bundesnetzagentur – Bnetza	Open Grid Europe (OGE)
Tarvisio(IT)/Arnoldstein(AT)	Italy	Autorità per l'Energia Elettrica e il Gas – AEEG	Snam Rete Gas*
	Austria	Energie-Control GmbH - E-Control	TAG GmbH*
Blaregnies Segeo(BE)/Taisnières(H)(FR)	Belgium	Commission pour la Régulation de l'Electricité et du Gaz – CREG	Fluxys
	France	Commission de Régulation de l'Energie – CRE	GRTgaz*
Hilvarenbeek/Poppel	Belgium	Commission pour la Régulation de l'Electricité et du Gaz – CREG	Fluxys
	The Netherlands	Office of Energy Regulation (Energiekamer) - NMa-EK	GTStranport*

¹ TSOs and NRAs marked with a (*) did not submit any responses to the survey. The Polish NRA (**) only submitted responses for Mallnow.

IP selected	Country	Regulator	TSO
Zeebrugge IZT/HUB	Belgium	Commission pour la Régulation de l'Electricité et du Gaz – CREG	Fluxys
Negru Voda I - II	Romania	Romanian Energy Regulatory Authority – ANRE*	Transgaz*
	Bulgaria	State Energy & Water Regulatory Commission – SEWRC*	Bulgartransgaz EAD*
Lanžhot	Slovakia	Regulatory Office for Network Industries- RONI	eustream, a.s.
	Czech Republic	Energetický Regulační Úřad – ERU	Net4Gas
Waidhaus	Germany	Bundesnetzagentur – BnetzA	Open Grid Europe (OGE)
	Czech Republic	Energetický Regulační Úřad – ERU	Net4Gas
Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE)	Czech Republic	Energetický Regulační Úřad – ERU	Net4Gas
	Germany	Bundesnetzagentur – BnetzA	ONTRAS
Medelsheim(DE)/Obergailbach(FR)	Germany	Bundesnetzagentur – BnetzA	Open Grid Europe (OGE)
	France	Commission de Régulation de l'Energie – CRE	GRTgaz*
Larrau(ES)(F)	France	Commission de Régulation de l'Energie – CRE	TIGF
	Spain	National Energy Commission- CNE	Enagas
Bunde(DE)/Oude Statenzijl(H)(NL)	Germany	Bundesnetzagentur – BnetzA	Wingas
	The Netherlands	Office of Energy Regulation (Energiekamer) - NMa-EK	GTStranport*
Lasow	Germany	Bundesnetzagentur – BnetzA	ONTRAS – VNG Gastransport GmbH
	Poland	Urząd Regulacji Energetyki / The Energy Regulatory Office of Poland – URE **	Gaz-System S.A.
Winterswijk	The Netherlands	Office of Energy Regulation (Energiekamer) - NMa-EK	GTStranport*
	Germany	Bundesnetzagentur – BnetzA	Open Grid Europe (OGE)
Bacton(BBL/INT)	Great Britain	Office of Gas and Electricity Markets – Ofgem	NationalGrid
Mallnow	Poland	Urząd Regulacji Energetyki / The Energy Regulatory Office of Poland – URE	EuRoPol GAZ
	Germany	Bundesnetzagentur – BnetzA	Wingas
Badajoz(ES)/Campo Maior(PT)	Spain	National Energy Commission- CNE	Enagas
	Portugal	Entidade Reguladora dos	REN Gasodutos

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IP selected	Country	Regulator	TSO
Gorizia (IT) /Šempeter (SI)	Slovenia	Energy Agency of the Republic of Slovenia- AGEN-SI	/
	Italy	Autorità per l'Energia Elettrica e il Gaz – AEEG	Snam Rete Gas*
Julianadorp(GTS)/Balgzand(BBL)	The Netherlands	Office of Energy Regulation (Energiekamer) - NMa-EK	BBL company
Bocholtz	The Netherlands	Office of Energy Regulation (Energiekamer) - NMa-EK	GTStranport*
	Germany	Bundesnetzagentur – Bnetza	Open Grid Europe (OGE) ²

NB: As mentioned above, for TSOs that did not provide information via the online questionnaire, information was extracted from network codes, general terms and conditions or standard transportation contracts available online on their respective webpages. This applies to the following TSOs: GTStranport (NL), Snam Rete Gas (IT), Bulgartransgaz (BG), BOG, TAG and OMV (all AUT), Transgaz (RO), Net4Gas (CZ) and GRTgaz (F).

The maps on the following pages show the geographical distribution of IPs surveyed:

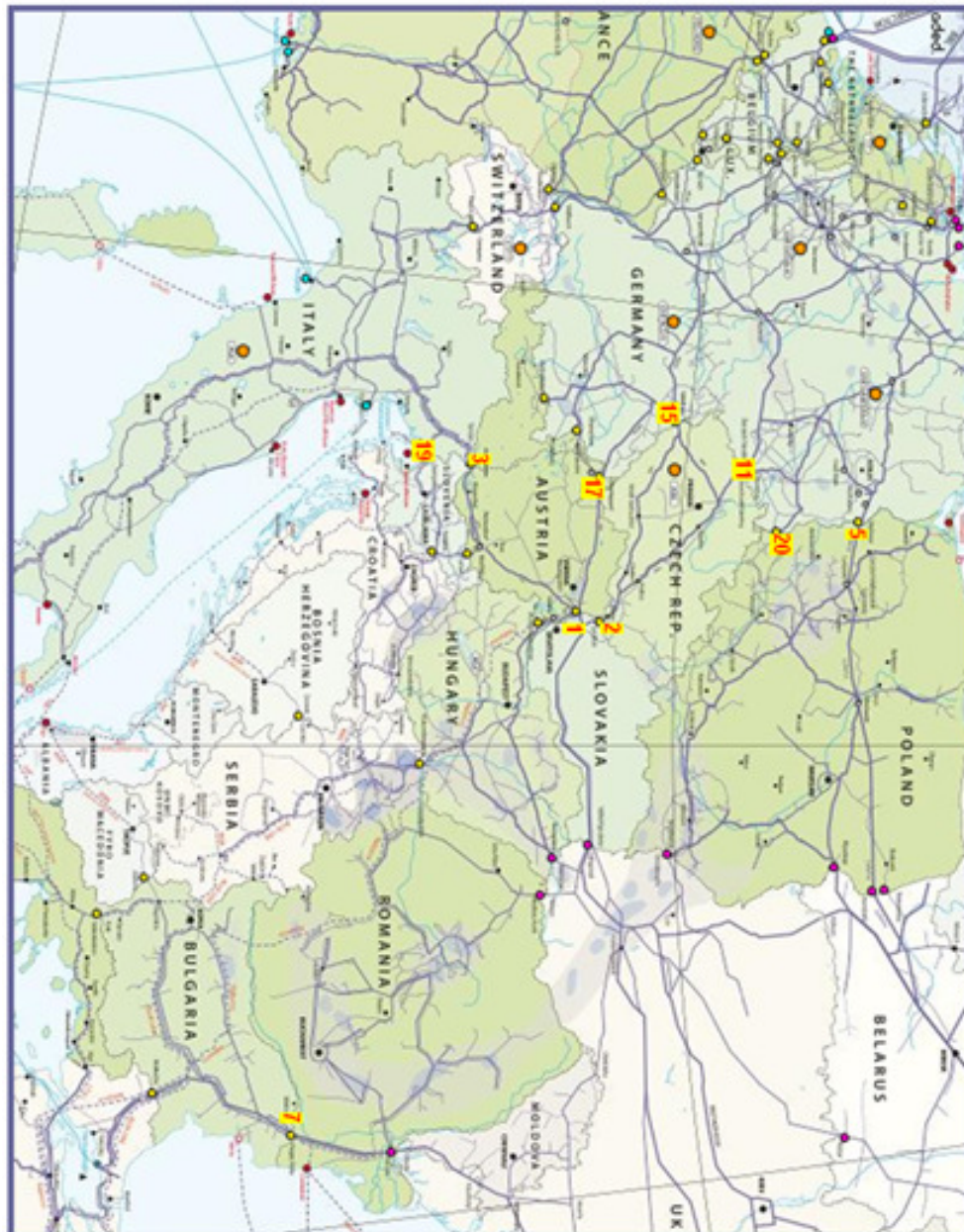
² Open Grid Europe was named E.ON Gas Transport at the time of the survey

Fig. 1: Map of selected European IPs (A)



- 4 Hilvarenbeek
- 6 Zeebrugge
- 8 Bacton
- 9 Blarignes
- 10 Winterswijk
- 12 Jullandorp
- 13 Medelstheim
- 14 Bochoitz
- 16 Bunde
- 18 Larran
- 21 Badajoz

Fig. 2: Map of selected European IPs (B)



- 1 Baumgarten
- 2 Lanzhot
- 3 Tarvisio
- 5 Malhnow
- 7 Negru Voda III
- 11 Hora Svate Kateriny
- 15 Waldhaus
- 17 Oberkappel
- 19 Gorizia
- 20 Lasnow

The response rate was globally satisfying for NRAs, with most of them providing answers to 73% of the questions (missing responses are mainly due to sub-questions which were not applicable to certain NRAs).

The low response rate and heterogeneous quality of responses from TSOs was discussed in a bilateral meeting with ENTSO-G. Furthermore the invitation to participate for individual TSOs was recalled.

Due to the fact that for most IPs, NRAs and TSOs on both sides of the IP were asked to provide information, the maximum number of respondents exceeds the number of actual NRAs and TSOs involved in the survey. The number of observations for NRAs is n=39 and for TSOs, n=40. In the case of Bunde (GER) and Oberkappel (AUT), the TSO OGE provided information separately for “entry” and “exit flows”, which also explains the higher number of observations. Where the total exceeds 100%, multiple responses were possible. All percentages refer to the theoretically possible number of responses (39/40).

3. Analysis of responses received

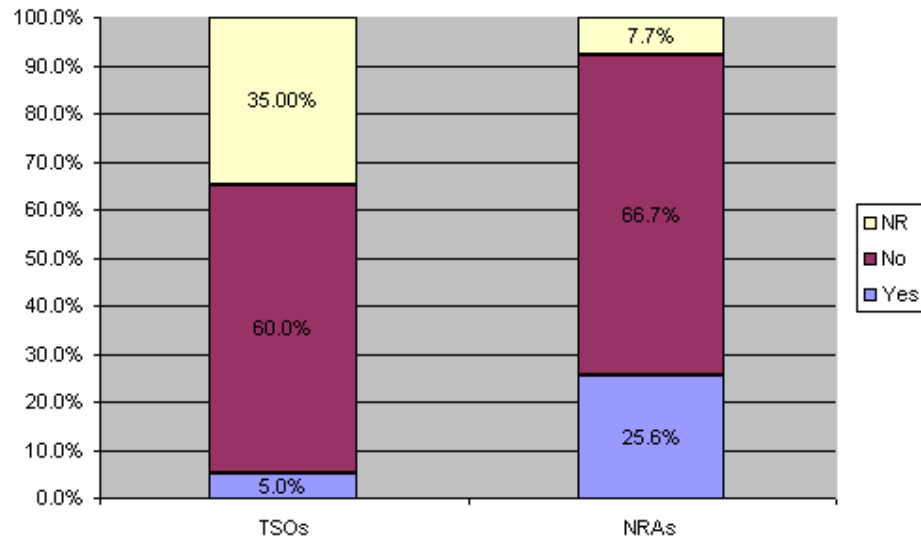
The purpose of this section is to assess the responses received to the survey and to draw conclusions related to CAMs and CMPs in place at selected IPs in Europe. Another emphasis was put on the functioning of and obstacles to secondary market trading. The section is therefore structured according to the main topics that have been surveyed: the existence and management of congestion at IPs, mechanisms to allocate capacity and suggestions on how to improve them, the development of secondary trading facilities and the coordination with the operators of adjacent systems related to harmonised procedures.

3.1. Assessment of physical and contractual congestion at IPs

The first section of the questionnaire aimed to explore whether users face problems related to congestion at the IPs selected and how the nomination of capacities is carried out in practice (*Q.1.1 Is there physical congestion in the selected network (s)?* and *Q.1.2 Is there physical congestion in the selected network (s)?*).

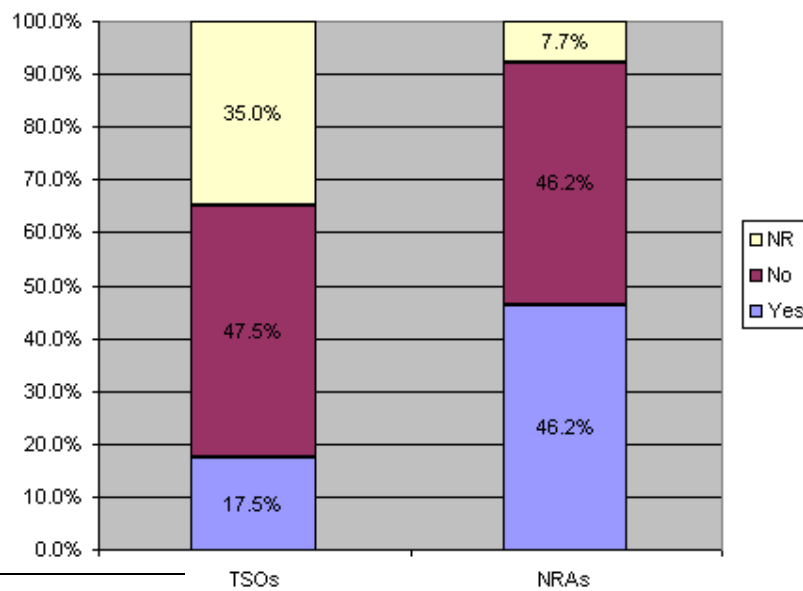
A vast majority of respondents indicated that there is no physical congestion in the selected network. The part of respondents indicating that congestion exists is bigger among NRAs than among TSOs, the difference being due mainly to diverging responses from the German NRA and German TSOs.

Fig. 3: Q 1.1. Is there physical congestion in the selected network(s)?³



Half of NRA-respondents and TSO-respondents indicated that users face contractual congestion in the networks examined.

Fig. 4: Q 1.2. Is there contractual congestion in the selected network(s)?



³ "NR" means "no response".

The difference between responses from NRAs and TSOs is even more explicit when considering Q 1.3 Do users have problems in contracting the capacity they need?. All TSOs which provided responses to this question state that users do not face problems in contracting the capacity they need. This response pattern applies even to TSOs who declared that there is contractual congestion in the selected network.

On the contrary, 41% of respondents from NRAs estimate users in the selected network do face problems in contracting the capacity they need. However, this different perception between TSOs and NRAs answers may be due to the ambiguity of the question

Some NRAs provided more detailed information on the type of obstacles users face in contracting the capacity needed (Q 1.3 If yes, please give details on the main problems users face). The Austrian NRA indicated that even though users prefer contracting firm capacity, only interruptible capacity is offered by the TSO. Furthermore, according to the NRA, the “*risk of interruption cannot be evaluated by users due to a lack of information*”. The Belgian TSO states that at IPs, where there is contractual congestion, “*not all users can contract easily the requested capacity*”.

For the German IPs of Waidhaus, Oberkappel, Bocholtz, Bunde, Medelsheim and Winterswijk, the NRA stated users face the problem of a total lack of bookable capacities on a firm basis. The same statement was given by the Dutch NRA for the IPs in Bocholtz, Bunde, Hilvarenbeek, Julianadorp and Winterswijk, where users “*cannot book ahead any (more) firm capacity, at least not for the next two to three years*”.

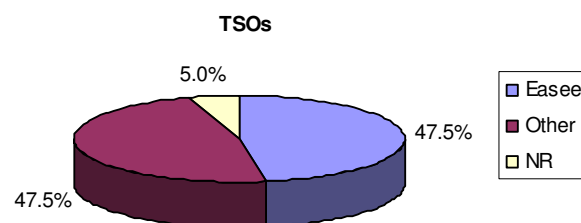
3.2. Nomination procedures in place at IPs

This point (*Q.1.4 What is the nomination procedure in place?*) aims at examining the characteristics of procedures in place to allow shippers to nominate the quantities needed. Detailed information was provided by numerous TSOs and missing information was completed whenever possible on the basis of an analysis of network codes and standard contracts.

For the purpose of this monitoring exercise, it was particularly interesting to assess the extent to which the standardised EASEE-Gas procedure (*“Common Business Practice CBP 2003-002/02 Harmonisation of Nominating and Matching Process”⁴*) is being used at IPs. The existence and the use of a single nomination procedure can be a main driving force in the promotion of a more integrated and harmonised gas market in Europe.

47.5% of respondents from TSOs stated that EASEE-Gas is being used as the nomination procedure at the respective IP, the same percentage of TSOs uses another procedure:

Fig. 5: Q 1.4. What is the nomination procedure in place?



Information provided on “other” nomination procedures is mainly related to the times of the day until which nominations or re-nominations have to be made. For the French IPs of Taisnières/Blaregnies Segeo and Obergailbach/Medelsheim, the French NRA states that nominations have to be submitted until 14:00 for the following gas day.

In principle, shippers are obliged to nominate at all IPs examined in the survey (*Q 1.5 Are all shippers obliged to nominate?*). However, the Dutch TSO GTS specified in its operational procedures that it “*may grant exemption from the obligation to nominate for specific entry points or exit points*” in a number of specific cases, for example if the “*shipper is the only shipper or only balancing shipper at the particular entry point or exit point*”.⁵

⁴ A detailed description of the EASEE-Gas nomination CBP is available from <http://www.easee-gas.org/media/4111/cbp%202003-002-02%20.pdf>, 11.11.2010

⁵ “Operational Procedures” available from GTS website: http://www.gastransportservices.nl/en/shippers/tsc/tsc_2011_1, 15.11.2010

3.3. CAMs in place at selected European IPs

The second part of the questionnaire was dedicated to gathering information on CAMs at the selected IPs. The purpose was to find out the mechanisms in place as well as the existence of short-term products and measures implemented by TSOs to maximise capacities and to ensure allocation procedures are in line with national network access systems as well as with the mechanisms applied cross-border.

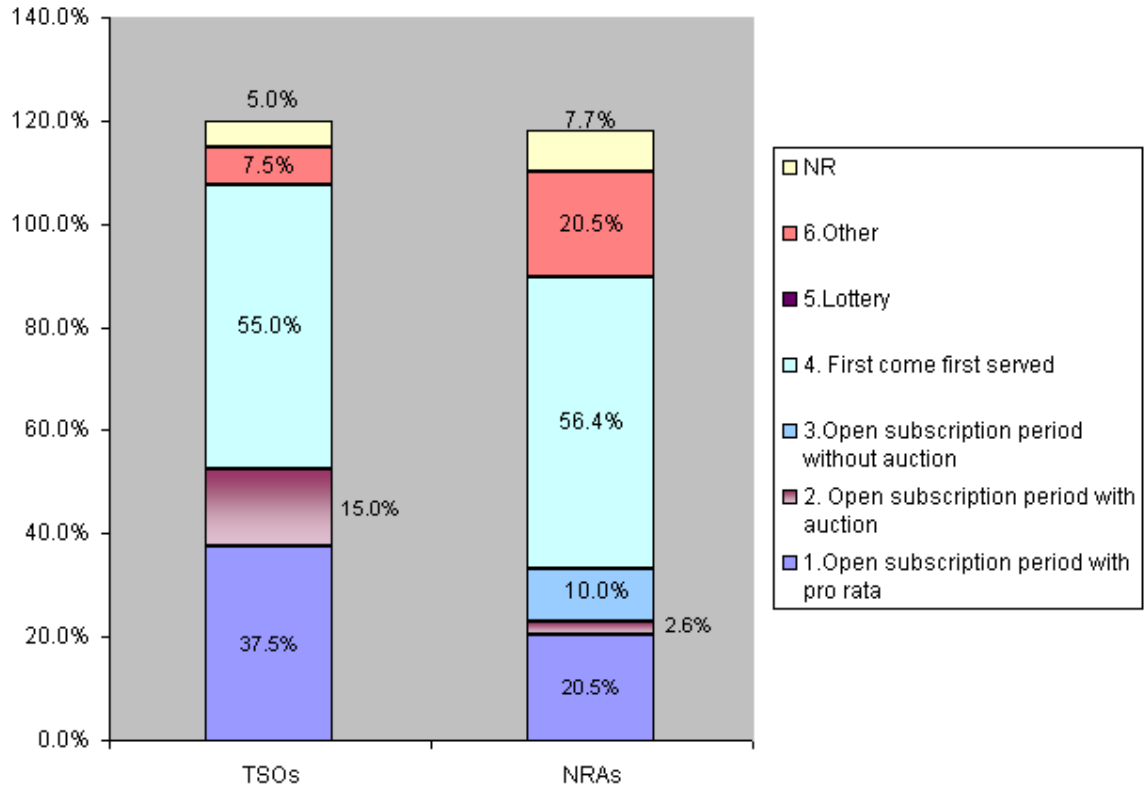
3.3.1. Allocation of primary capacities by TSOs

The CAMs in place at the selected IPs differ rather considerably (*Q.2.1 Which capacity allocation mechanism does the TSO apply for primary capacity?*). Although there are some discrepancies between information provided by TSOs and responses submitted by NRAs, “first come first served” (FCFS) appears as the most commonly used allocation mechanism, followed by “open subscription period with pro rata” and other procedures.

Information on “other procedures” was mainly provided by NRAs. The Austrian NRA states that in the case of the TAG (IP Tarvisio/Arnoldstein), the TSO was forced by the EC to organise auctions for short-term capacities and use pro-rata and a lottery (once) as mechanisms for the allocation of long-term capacities at the concerned IP. The Italian TSO Snam Rete Gas applies a pro rata mechanism with “class priorities”, meaning that capacities are allocated pro rata and priority is given to parties with contracts signed before August 1998 and to those with multi-annual contracts.⁶

⁶ Information available in the network code, available from http://www.snamretegas.it/en/clienti_e_istituzioni/pdf/Codice_Rete/05_capacity_booking.pdf, 16.11.2010

Fig. 6: Q.2.1 Which capacity allocation mechanism does the TSO apply for primary capacity?



3.3.2. Availability and characteristics of short-term products offered by TSOs

Short-term products are available at all selected IPs except Mallnow (Poland/Germany) (Q.2.2. Are there short term capacity products available, either on a short-term basis (lead time) or short term nature of the product?).

Apart from the mere availability of short-term products, their characteristics were also subject to questions in the survey (Q.2.2.1 How short is short-term?). The survey distinguished between products of short-term nature and products with short lead time.

The Belgian TSO specifies that products with a lead time of 1 to 2 business days as well as short-term products covering as little as 1 gas day are available. Within-day capacities (interruptible) are also offered to users at these IPs.

Lead time for short-term products at German IPs is D-1 and short-term capacities of down day-length are available. The same is true for Baumgarten and Lanzhot, according to the Slovakian TSO. Lead time for short-term products at Julianadorp is slightly longer with reservations possible until noon on D-2 before the gas day concerned.

For the IP at Larrau, the open subscription period (with pro-rata) for short-term firm capacities is held every October for the gas year to come beginning 1st of April. At the other French IPs surveyed, Blaregnies Segeo/Taisnières and Medelsheim/Obergailbach, the allocation procedure for short-term capacities has several steps. For daily capacities, allocation is done on a “first come first serve” basis. In case not all daily capacity is sold, remaining capacities are allocated by auction between 2 and 3 pm on D-1. For monthly and annual capacities, allocation is done via an open subscription period and pro-rata in case of a lack of available capacities to satisfy all users.

At some IPs, a certain share of capacities are set aside for products with short-term lead time (Q.2.2.2 If yes, what is the percentage of reservation for products with short term lead time (as opposed to long-term lead time)?). According to information submitted by TSOs and NRAs, this is true for seven IPs with capacity shares reserved for short-term products ranging from 8.5% at Baumgarten to 25% at Badajoz.

Little information is available on how the reservation for short-term capacity products is achieved (Q.2.3 How is the reservation for short-term capacity products achieved?). The Austrian NRA states that this is done via a (framework) transportation contract. The Slovakian NRA also mentions “framework agreements” which are used for the reservation of daily and “standard requests for transmission” for the reservation of monthly capacity.

An overview of short-term products at IPs for which information was submitted can be found in the following table. [Where no specific mention is made, information provided by TSOs and by NRAs was merged for each IP for the purpose of this table.]

Table 2: Overview of short-term products and reservation mechanisms at selected European IPs

Country	IPs	Products with short-term lead time	Products of short-term nature	% of capacities reserved for Short-term	Reservation mechanism for ST products
Austria	Oberkappel	D-1		None.	(Framework) transportation contract.
	Tarvisio(IT)/Arnoldstein(AT)	D-1		None.	(Framework) transportation contract.
	Baumgarten	D-1		8.5%	Idem.
Belgium	Blaregnies Segeo(BE)/Taisnières(H)(FR) Hilvarenbeek/Poppel Zeebrugge IZT/HUB	D-2, D-1, within-day (interruptible)	≥ 1 gas day + within-day (interruptible)	15%	During OSP, 15% is set aside.
Bulgaria	Negru Voda I - II	/	/	/	/
Czech Republic	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE) Lanzhot Waidhaus	D-1	1- 31 days	/	/
France	Larrau(ES)(F)	OSP with pro rata D- ca.5 months	1 y or less	20%	OSP with pro rata + priorities.
	Medelsheim(DE)/Obergailbach(FR) Blaregnies Segeo(BE)/Taisnières(H)(FR)	Firm annual capacity can be booked between 11 th of M-7 and last day of M-2. Interruptible annual: between 21 st of M-7 and last day of M-2. Monthly capacity: between 21 st of M-2 and 15 th of M-1. Daily Capacity: between 20 th of M-1 and D-1 at 9:00.	Daily, monthly, yearly.	20%	FCFS for daily, auction for daily capacity that has not been sold (between 2 and 3 pm on D-1). Monthly: OSP and pro rata if necessary. Annual: OSP with pro rata if necessary.

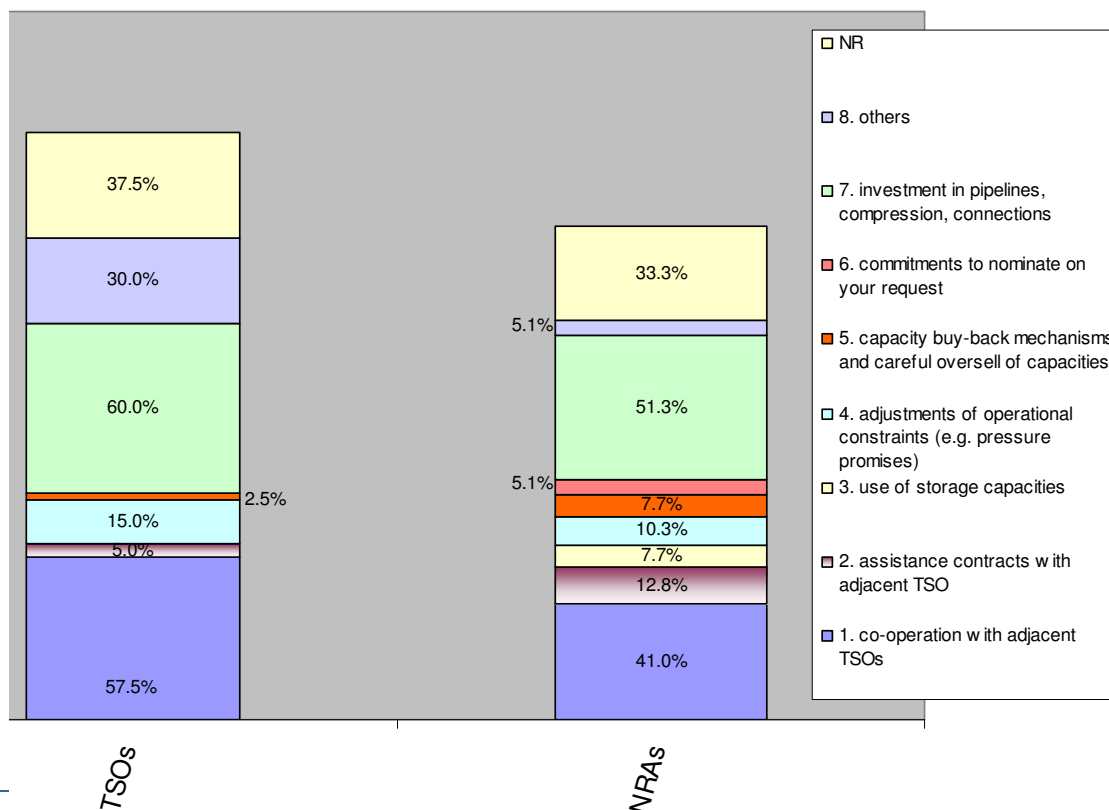
Country	IPs	Products with short-term lead time	Products of short-term nature	% of capacities reserved for Short-term	Reservation mechanism for ST products
Germany	Waidhaus Oberkappel Bocholtz Bunde(DE)/Oude Statenzijl(H)(NL) Medelsheim(DE)/Obergailbach(FR) Winterswijk	D-1	1 gas day	None.	Not applicable
	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE) Lasow	Max. 2 days in advance.	1 gas day	None.	Not applicable
	Bunde(DE)/Oude Statenzijl(H)(NL) Mallnow	Usually D-1	1 gas day	20% for contracts with 1-2 years duration	Not applicable
Italy	Gorizia(IT)/Sempeter(SI) Tarvisio(IT)/Arnoldstein(AT)	Month ahead.	Annual, Seasonal, "shorter than one thermal year"	None.	Not applicable
Poland	Mallnow	None.	None.	None.	Not applicable
Portugal	Badajoz(ES)/Campo Maior(PT)	(Monthly, weekly.)	/	None.	Not applicable
Romania	Negru Voda I - II	/	/	/	/
Slovakia	Lanžhot Baumgarten	D-1	≥ 1 gas day and "multiples of days/months".	According to NRA: No reservation, but in fact ~5%. TSO: 8% for monthly.	Daily contracts - framework agreement. Monthly contracts - standard request for transmission.
Spain	Larrau(ES)(F)	OSP with pro rata D-5 months	<1y to 1 day	20%	Yearly open subscription with pro rata.
	Badajoz(ES)/Campo Maior(PT)	D-1 to 12 months	<2 y to 1 day	25%	FCFS.

Country	IPs	Products with short-term lead time	Products of short-term nature	% of capacities reserved for Short-term	Reservation mechanism for ST products
The Netherlands	Julianadorp(GTS)/Balgzand(BBL)	D-2 before noon	1 day	None.	None.
	Bochtoltz Winterswijk Bunde(DE)/Oude Statenzijl(H)(NL)	According to NRA: All capacity is sold per month, but with a strong incentive to book for the whole year.		None.	None.
Great Britain	Bacton(BBL/INT)	Rolling monthly, day ahead, withinday.	No earlier than D-7 for daily, M-18 for monthly.	10% held back from LT auction for MT auction.	10% of capacities offered in MT auction.

3.3.3. Maximisation of available capacity at IPs

Furthermore, ERGEG aimed at examining what measures TSOs take in order to maximise available capacities at the selected IPs (*Q.2.4 Which tools do you [does the TSO] apply to maximise the level of available capacity? Art.5. Para 1*).

Fig. 7: Q.2.4 Which tools do you [does the TSO] apply to maximise the level of available capacity? Art.5. Para 1



The view of NRAs and TSOs differ on this matter, although tendencies are the same for both groups of respondents. All sets of responses received from TSOs for this question mention co-operation with adjacent TSOs as a means of maximising available capacities at the selected IP. 41% of participants from NRAs indicate the same.

The most widely used mechanisms to increase capacities are investment in pipelines, compression and connections. This option is mentioned by 60% of TSOs and more than half of NRAs.

For TSOs, the third most widely applied measures to maximise capacities are “other” mechanisms. For the German IPs – apart from Hora Svate Kateriny/Deutsch-Neudorf - this “other mechanism” corresponds to flow commitments according to the TSOs.

The Belgian TSO mentions a range of mechanisms used at the three IPs, such as: *“network simulations; unused firm capacity offered as interruptible; use of operational reserves at storage and LNG terminal; assistance of adjacent TSO to cope with flow patterns and limit maintenance impact.”*

The Spanish NRA responded that a joint open season has been organised in order to assess market needs on both sides of the Larrau IP and to decide on mid-term and short-term capacity.

In Great Britain, according to the NRA, the TSO *“is obliged under the Gas Transporter (GT) Licence and the Uniform Network Code (UNC) to make available the maximum technical capacity; this is achieved through the auction process”* The TSO thus makes available 90% of baseline and 100% of any incremental capacity via long-term auctions for entry capacity. If there is enough demand, the TSO is also able to offer additional firm capacity above the baseline via an auction if the *“risk/reward assessment is favourable”*. Use of incremental capacity is subject to the Use-it-or-lose-it principle (UIOLI).

3.3.4. Compatibility of CAMs with national network access system and assessment of obstacles to fully functioning CAMs

Apart from assessing the nature of CAMs in place at selected IPs over Europe, ERGEG was also interested in gathering views on the compatibility of CAMs with national network access regimes (*Q. 2.5 Are CAMs applied at the IP compatible with national network access system? (Art 5 Para 1)*) as well as potential obstacles to the full functioning of CAMs (*Q.2.6 What are potential obstacles to fully functioning CAMs at the IP?*).

All responses received from TSOs for this question, indicated that CAMs are well compatible with the national network access regime. The same is true for the 36 responses received from NRAs.

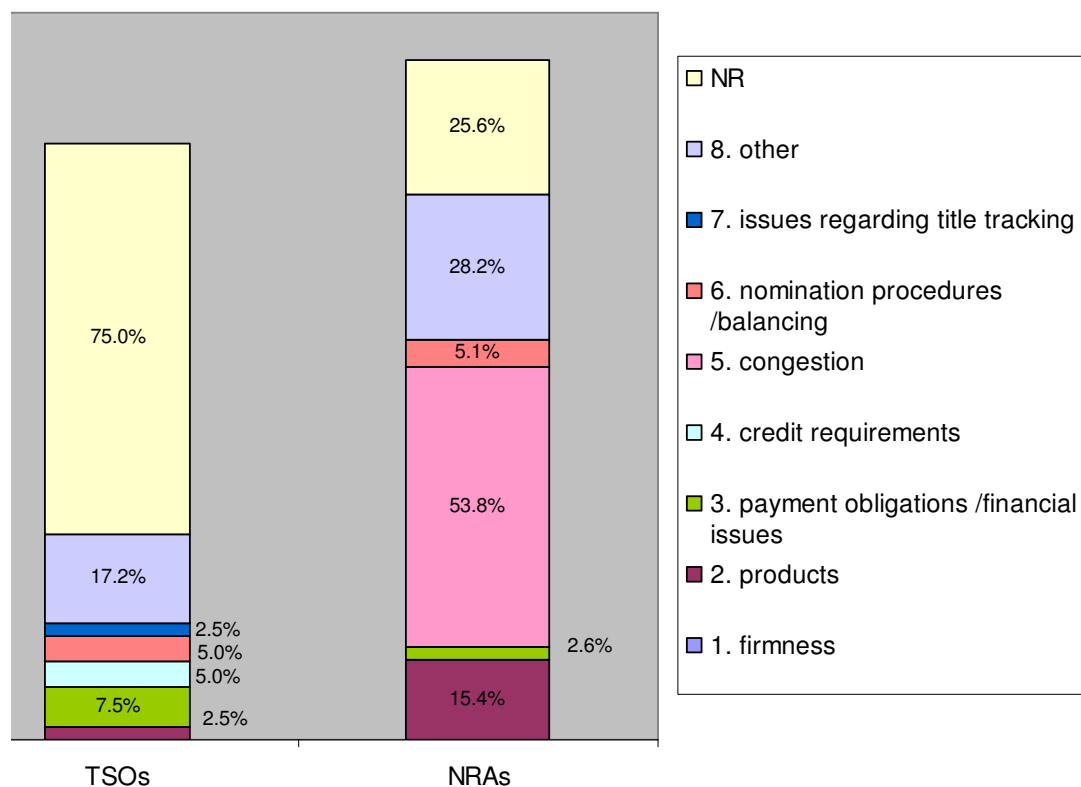
The Belgian TSO indicated that the CAM is approved by the NRA and must be in line with the national regulatory framework. In Spain, according to the TSO, a regulation was amended in 2008 to make the national network access regime compatible with CAMs at the other side of the border – namely coordinated OSP with pro rata at Larrau.

A crucial question for the purpose of this study was to identify obstacles that prevent CAMs at IPs from their full functioning. (*Q.2.6 What are potential obstacles to fully functioning CAMs at the IP?*). Only a few TSOs and about two thirds of survey participants from NRAs expressed their point of view on this question.

According to responses from TSOs, "other obstacles" constitute the most important obstacle, followed by payment obligations (financial issues, problems with nomination procedures) balancing, credit requirements and products as well as issues regarding tracking.

A majority of respondents from NRAs considered congestions as the main obstacle to fully functioning CAMs, followed by "other obstacles" and problems related to products.

Fig. 8: Q.2.6 What are potential obstacles to fully functioning CAMs at the IP?



A closer look at detailed comments provided by TSOs and NRAs shows that a lack of harmonisation of procedures and allocation mechanisms is a problem at several IPs. The French NRA indicates that the lack of harmonisation between procedures used by adjacent TSOs is an obstacle. In the case of Medelsheim / Obergailbach, according to the French NRA, the German TSOs use the FCFS rule only, do not provide short-term products and have a different design for interruptible products. However, the new German Gasnetz Zugangsverordnung changed this. Auctions are the used CAM and 20 % of the annual capacities are offered for contracts with duration of 1 to 2 years. In the case of Blaregnies / Taisnières and Larrau, efforts to harmonise the CAMs have already been undertaken with fully coordinated open season and OSP "procedures for the commercialisation of capacities at both sides of the border" being applied at Larrau.

The assessment of the situation by the Italian NRA goes in the same direction. It states that there are no common allocation rules on the two sides of the selected IPs in its jurisdiction, which is an obstacle to fully functioning CAMs.

The Dutch NRA makes concrete proposals on how the effectiveness of CAMs could be improved in its jurisdiction. According to the authority, the CAM applied should be changed into auctions and incentives to book long term capacities on peak demand should be removed.

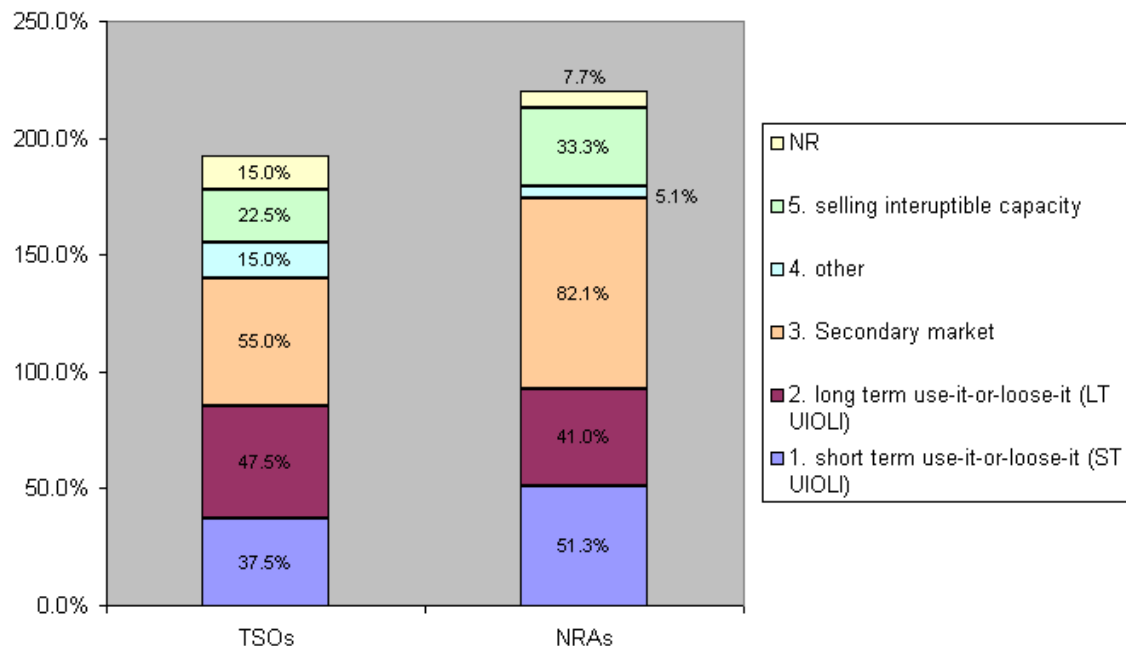
3.4. Application of CMPs at selected European IPs

The assessment carried out in the first part of the survey showed that contractual congestion is a persisting problem at a number of the selected IPs in Europe. Section 3 of the questionnaire aims at gathering information on applied CMPs by TSOs and whether unused contracted capacities are made available to the primary market in case of contractual congestion.

3.4.1. Overview of CMPs in place

Although there are slight differences in responses from NRAs and TSOs, a secondary market appears to be the predominant option for congestion management at the selected IPs. This is followed by the application of the UIOLI principles, be it short – or long term.

Fig. 09: Q 3.1 In the event of congestion what is the congestion mechanism procedure applied?



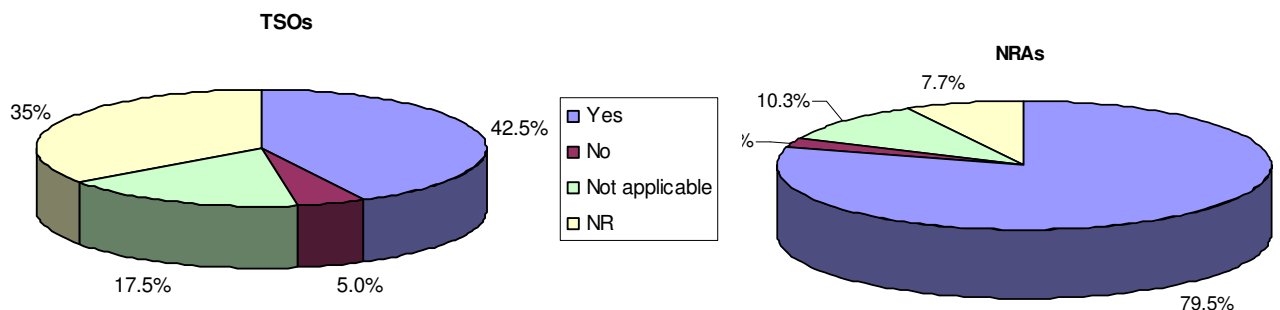
Among the CMPs mentioned by NRAs and TSOs under the category “other”, “selling interruptible capacity” appears as a frequent response (in the answers of the Dutch, Italian, Austrian and Czech NRAs). The NRAs as well as the German TSO OGE mentioned this CMP. The British NRA specified that besides short-term UIOLI, “other management procedures” are in use in the case of physical congestion.

The Belgian TSO suggested “switching to a subscription period with pro-rata allocation” in addition to the three congestion mechanisms already in place at the concerned IPs (short term UIOLI, long-term UIOLI, secondary market).

3.4.2. Views on offering unused contractual capacity to the primary market

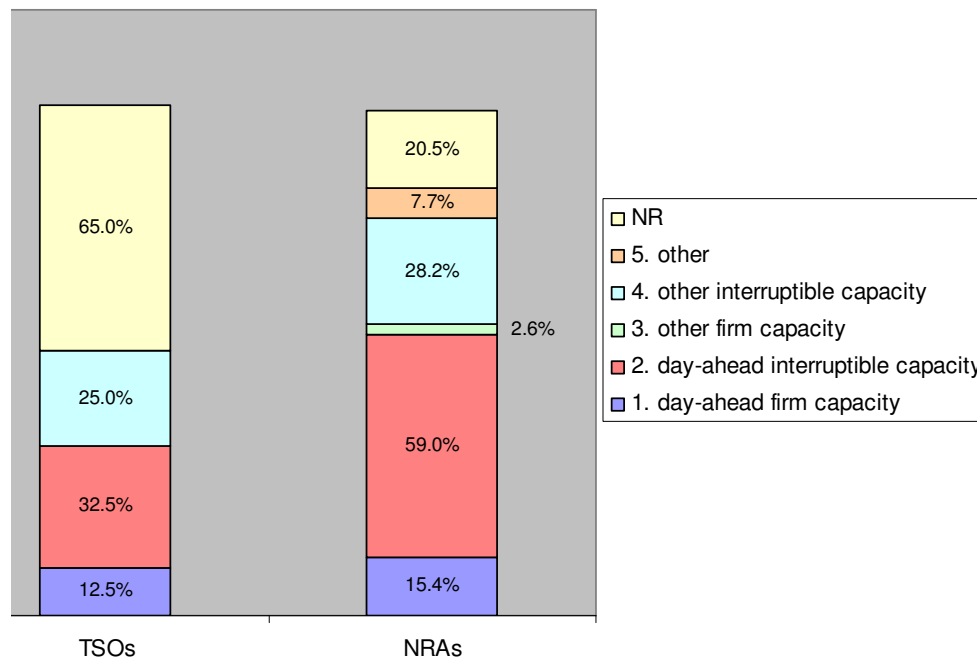
NRAs and TSOs were asked to provide information on their views about offering unused contractual capacity to the primary market. Almost all NRAs and a majority of TSOs agreed on the fact that unused capacity should be offered to the primary market in case of contractual congestion. Only one NRA and two TSOs do not see a need for making these capacities available to the primary market.

Fig. 10: Q 3.2 In principle, in the event of congestion, should unused capacity be offered to the primary market?



Survey participants have been asked to specify what type of capacities should be made available and through which procedure. A large majority of respondents named “day-ahead interruptible capacity” as the type of unused capacity that should above all be made available on the primary market. This category is followed by “other interruptible capacity” and making available firm capacity was also mentioned by a number of respondents. It should be underlined that only 11 responses were available from TSOs on this question. However, the answers submitted by TSOs as well as NRAs follow the same tendency.

Fig. 11: Q 3.2.1 If yes, please specify: What kind of capacity?



The last question about making unused capacity available on the primary market refers to the procedures used to do so; twelve respondents from TSOs and thirty respondents from NRA provided input on this question.

The German TSO OGE mentioned the “TSO online booking system”, whereas the Spanish TSO specifies that “*existing shippers can nominate above their booked capacity*”. Unused capacity is made available “*transparently via website*” by the Slovakian TSO. The British TSO states that “*firm capacity holders who did not fully use their firm capacity*” are able to “*re-nominate to the holding*” and that the “*TSO scales back the interruptible capacity as required*”.

On the NRA side, the Austrian NRA stated unused capacity should be made available to the primary market “*through the application of a firm day-ahead UIOLI mechanism*” with “*day-ahead UIOLI*” also being the preferred option for the Czech NRA.

The procedure applied in France is described by the French NRA as a process with several steps. The mechanism for long-term UIOLI can be applied if, over a period of at least 6 months, the daily capacities nominated by a shipper are on average less than 80% of the daily capacity subscribed and if this shipper has not taken steps to transfer the surplus capacity to other shippers. In order to make this UIOLI capacity effectively available to other shippers, the TSO must have been “*unable to meet at least one justified request for subscription of daily capacity.*”

According to the French NRA, short-term UIOLI can be requested every day for the following gas day via the “over-nomination” procedure. This procedure allows shippers to nominate more capacity than booked with the available UIOLI capacity being published on the internet. In case not all demands for UIOLI can be met, this capacity is allocated pro-rata with a priority for over-nominations linked to firm capacity. In case the holder of the original capacity wants to re-nominate, his requests have priority.

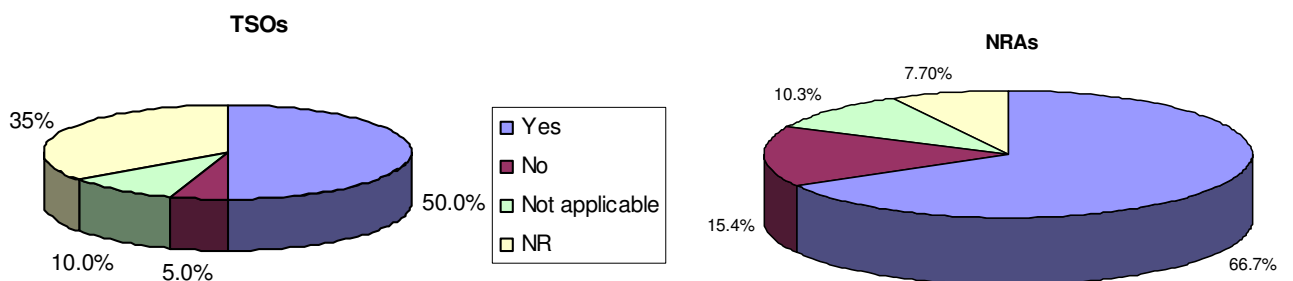
The German NRA specified that unused capacity is made available via a “*common capacity platform*”, whereas the British NRA stated that unused capacity should be made available via auctions since this allows “*users to pay a price equal to the value they place on capacity*”.

According to the country’s NRA, the Italian TSO offers unused capacity on a monthly basis whilst Slovenia makes day-ahead interruptible capacity visible online. The Spanish NRA suggested that unused capacity should be made available on a FCFS basis.

Finally, the Dutch NRA is of the opinion that auctioning, and preferably “implicit auctioning”, should be the way to make unused capacity available.

To close the section on making available unused capacity, TSOs and NRAs have been asked to provide information on whether contracted unused capacity is effectively made available in practice and, if it is the case, which type of capacity is offered this way.

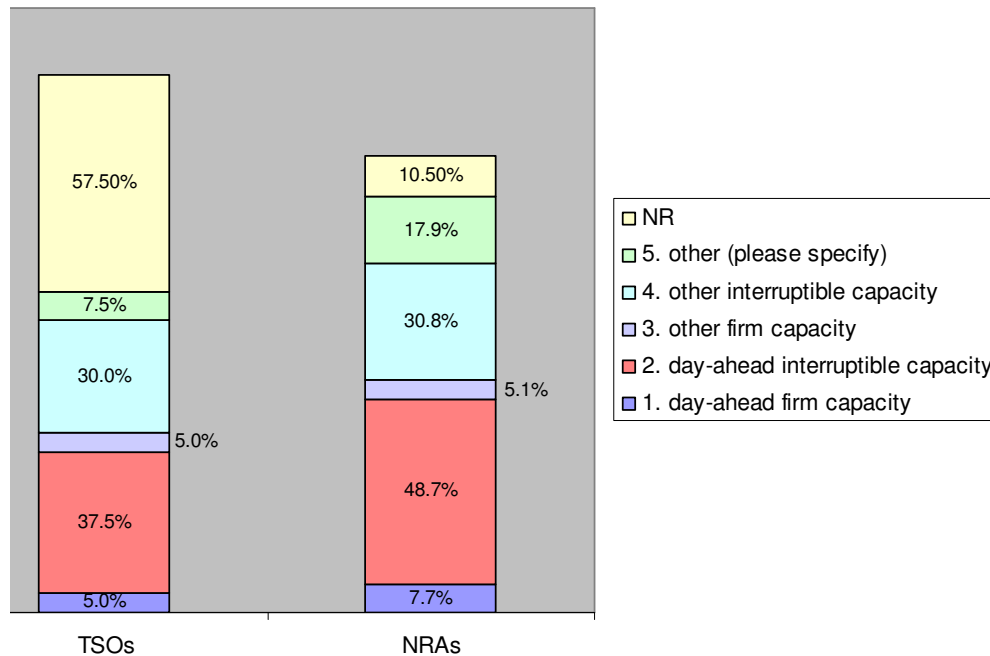
Fig. 12: Q 3.3 In practice, in the event of contractual congestion, is any contracted unused capacity normally made available on the primary market?



The analysis shows that in a majority of cases, contracted unused capacity is indeed made available on the primary market. However, a bigger share of NRA respondents stated that unused contracted capacities are not made available compared to information provided by TSOs. More precisely, the Slovenian and Dutch NRAs stated that for the concerned IPs, no unused contracted capacity is normally made available. The Slovakian NRA indicated that this question is “not applicable” to their situation.

Among the TSOs which submitted answers on this issue, Julianadorp appear as the IPs where unused capacity is not made available in practice to the primary market.

The subsequent question tried to gather information on the nature of unused capacity made available at IPs (firm or interruptible, day-ahead or other).

Fig. 13: Q 3.3.1 If yes, please specify


The analysis of responses submitted clearly shows that day-ahead interruptible capacity is the most common type unused contracted capacity being made available to the primary market, followed by other interruptible capacity. A bit less than a quarter of responses from TSOs concerned firm capacity, be it day-ahead or other.

The French NRA further specified that “*the existence of the long-term UIOLI procedure can be an incentive to resell unused capacity on the secondary market and therefore avoid contractual congestion*”. The Belgian TSO stated that if “*LT UIOLI is applied by NRA, firm capacity is made available*”.

3.5. Trading of capacity rights and existence of secondary markets at selected IPs

Section 4 of the questionnaire on CAMs and CMPs at selected IPs in Europe was dedicated to the trading of capacity rights and the existence and characteristics of secondary markets for trading rights. The monitoring exercise here aimed at finding out whether users do have the possibility to trade their contracted capacities on a secondary market and how this market is organised in practice. Special emphasis was put on the TSOs’ and NRAs’ views on how well these secondary trading facilities function and how they could be improved.

3.5.1. Possibilities for users to re-sell unused capacities

Question 4.1 “*Can users re-sell or sublet contracted capacity on the secondary market?*” was answered positively by all NRAs and TSOs; only the Portuguese TSO stated that this question was “not applicable” for the IP at Badajoz on the Portuguese side. The Portuguese NRA did however answer this question positively for the IP concerned.

Given the existence of secondary trading facilities at almost all of the selected IPs, it consequently comes as no surprise that almost all respondents considered that reasonable steps had been taken by TSOs to facilitate secondary market trading (*Q 4.2 Has the TSO undertaken reasonable steps to allow capacity rights to be freely tradable? Art.8 Sentence 1*).

Poland is an exception to this tendency. Only the Polish TSO operating the Mallnow IP is not of this opinion. Neither does the Polish NRA believe TSOs in its jurisdiction have undertaken reasonable steps to allow secondary market trading.

3.5.2. Steps taken by TSOs to provide secondary trading facilities at selected European IPs

More detailed information on the nature of steps taken by TSOs was provided through answers to question *Q 4.2.1 If so, what?*. These details are reported and analysed below.

The Belgian TSO indicated that a “bulletin board, an anonymous trading platform [and] contractual framework” have been put in place. German TSO OGE also referred to a “harmonised trading platform trac-x” and the ERGEG GRI NW project for day-ahead secondary trading. The same secondary trading capacity platform (trac-x) was mentioned by German TSOs Ontras and Wingas.

The Spanish TSO Enagas offers its “users a tool to facilitate the exchange of contracted capacity at its facilities.” This means that through the TSO’s website, “interested parties can submit capacity offers and requests for secondary market capacities as well as access the related bulletin board”. Enagas also declared that it will “continue with the development of the secondary market platform”, adapting it to potential regulatory developments and market needs.

The Spanish NRA specified that the procedure is public and carried out on the website, containing terms and conditions to trade on the secondary market and templates allowing to share information on supply and demand as well as a standard contract.

According to the TSO BBL, shippers at Julianadorp have two options to make use of secondary trading facilities. First of all, it is possible for them to transfer complete contracts (“assignment”). On the other hand, shippers have the possibility to transfer usage rights. BBL specified that this can be done with very low costs for the shipper, which facilitates the trading of capacity rights.

For GTS, the Dutch NRA stated that a secondary market platform is in operation allowing shippers to buy and sell secondary capacity.

At the Bacton IP, according to the TSO, full secondary trading facilities for exit flows will be available from 2011/2012 onwards, whereas such facilities are already in place in the case of entry flows. Eustream, the Slovakian TSO, stated that there are “no obstacles for capacity assignments” neither at Baumgarten nor at Lanzhot.

Apart from confirming the information provided by TSOs, NRAs also provided more details on steps taken to facilitate secondary trading of capacities. The Austrian NRA’s response made it clear that although a

“bulletin board” has been put in place at Baumgarten, Oberkappel and Tarvisio/Arnoldstein, no mechanisms for effectively trading capacities have been developed so far. The Czech NRA mentioned an “*electronic notice board*” that is in place for the IP’s in its jurisdiction.

France provided details on an electronic platform called “Capsquare”, which was launched by Fluxys and GRTgaz to allow multilateral and anonymous trading of transmission capacity. Secondary market capacity can be traded over this platform; over-the-counter (OTC) transactions can be notified on Capsquare as well. The platform is used as a multilateral market and this allows the transfer and assignment of usage rights. Day-ahead capacities can be traded as well as mid-term (month) and long-term (year) capacities. This tool is the same for transactions on the network of GRTgaz and of Fluxys.

For the IP at Larrau, the French NRA mentioned a website called “TETRA” on which shippers can submit their sale requests.

The British NRA Ofgem provided information on how it was ensured that secondary trading facilities were available to traders. An obligation in that sense was introduced into the UNC. National Grid has to allow entry and, from October 2012 onwards, exit capacity to be traded between users. Capacities can be traded and it is possible for users to “*transfer unsold capacity away from another system entry point*”.

According to the Slovenian TSO, a uniform web portal exists, the subletting of contracts is permitted, information on supply and demand on the secondary market is available and reasonable time limits for the realisation of contracts are imposed.

3.5.3. Secondary trading facilities in place at IPs

Before analysing which suggestions TSOs and NRAs made for the improvement of secondary market trading and how stakeholders were involved in their development, a set of questions in the survey aimed at providing an overview on how secondary trading is being handled in practice and how procedures in place do look like.

For Question 4.3 How does the secondary market trading work for the TSO system(s) in your jurisdiction?, the Austrian NRA stated that users are obliged to offer “*any transport capacity not used but committed on the bulletin board*”. In case the user does not comply with this requirement, “*any unused transport capacity shall be made available to third parties by the TSO.*”

The Czech NRA described the procedure in place as a “*non-anonymous submission of offers and demands in the TSO system*”.

According to the French NRA, at Medelsheim and Taisnières the procedure differs for daily capacity on the one hand and annual capacity on the other hand. Two different transaction methods are possible: “rights-of-use transfer” for daily capacity only, as well as “rights and obligations transfers” for annual capacity. The transfer of usage rights for daily capacity has to be notified on Capsquare, whereas the notification for transferring rights and obligations linked to annual capacity can be made either via Capsquare or directly to the TSO.

At the Larrau IP, *“shippers with a transmission contract are able to exchange multi-year, annual, multi-seasonal, seasonal, monthly and daily capacity on the secondary market. If a user wishes to trade capacities for the exact period of a season”*, they have to transfer rights and obligations. Requests for transfer have to be submitted via “TETRA”, the TSO’s website. In this case, the transaction is signed on a bilateral basis.

According to the French regulator, usage rights sales are operated at Larrau *“when the following capacities are concerned: - seasonal, for a duration of one or several complete months or consecutive days; - monthly, for a duration of one or several complete months or consecutive days; - daily, for a duration of one day or several consecutive days.”* In this case too, the *“assignor shipper has to use TETRA to submit the capacity sale request”*, whereas the *“assignee shipper does not have to validate this request”*.

As already mentioned, secondary market trading is carried out online via the trac-x platform at all selected German IPs.

The British NRA Ofgem specified that the same platform is being used to purchase primary entry capacity and secondary capacity. A main feature of this system is the virtual “bulletin board”, which makes it possible for users to *“add and view available capacity for sale or purchase [and to] query and view posted trade details, post new trade requests and modify existing trade requests on the bulletin board.”*

Contrary to these systems, secondary market trading is done by bilateral contracts between operators (with the TSO being informed of transactions) in Italy. The situation is comparable in Belgium, where most transactions are being carried out over the counter, despite the existence of a bulletin board provided by the TSO.

At the IP of Badajoz, secondary market trading is rather used as a tool in case of (physical) congestion to optimise the IP’s usage profile than as an alternative to the primary market, according to the Portuguese NRA. If necessary this trading is done via a bilateral agreement between market participants. According to the TSO, measures are in place to make sure that the allocation of capacities is in line with the needs of the market and contractual congestion does not occur. This is achieved by application of a “capacity goes with consumer” principle in the allocation of yearly capacity and the use of short-term UIOLI.

The Slovenian NRA adds to the information provided under the previous question that the TSO has to *“confirm the technical possibility of realization of a contract from the secondary market”*.

The procedure applied for secondary market trading at the IPs under the jurisdiction of the Spanish NRA includes a free and public bulletin board with procedural details being published on the TSO’s webpage. The matching between shippers offering and shippers willing to buy capacities is done by the TSO according to requests received from shippers.

The Dutch NRA suggested that the secondary trading facilities at the selected IPs *“don’t work properly”*. Indeed, experience shows that shippers there *“seem to be reluctant to offer firm capacity non-anonymous”*.

Shippers do not make extensive use of secondary market trading facilities in Slovakia either, where the TSO noted that *“due to the existence of available firm capacity”* shippers prefer to use the primary market. The secondary market at the IPs concerned thus operates on a much smaller scale.

The British TSO mentioned an electronic bulletin board that is at the disposal of shippers at Bacton, but the possibility for them to realise deals bilaterally by using the TSO's electronic system also exists.

The table below provides a comprehensive overview of information provided by respondents on the issue of secondary market trading at the selected IPs.

Table 3: Overview of information on secondary trading facilities provided by TSOs and NRAs

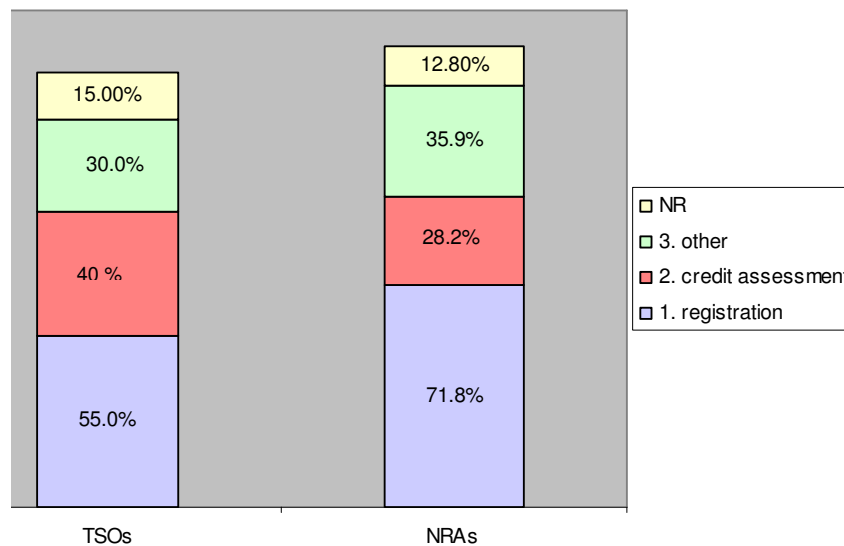
Country	IP	Trading platform	Procedure	Bulletin Board	Other information
AUT	Oberkappel			Implemented.	Shippers obliged to make unused contracted capacity available, otherwise TSO offers it to third parties.
AUT	Tarvisio(IT)/Arnoldstein(AT)				
AUT	Baumgarten				
BE	Blaregnies Segeo(BE)/Taisnières(H)(FR) Hilvarenbeek/Poppel Zeebrugge IZT/HUB	Capsquare	Contractual framework.	Implemented.	In practice rather over the counter despite existence of bulletin board.
BG	Negru Voda I - II				
CZ	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE) Lanzhot Waidhaus			Electronic notice board.	Non-anonymous submission of offers/demands via TSO system.
F	Larrau(ES)(F)	TETRA (website)	Available online, contains terms&conditions, templates and contract model.	Implemented	Exchange of (multi)annual, (multi)seasonal, monthly and daily on the secondary market. Requests for transfer only via TETRA.
F	Blaregnies Segeo(BE)/Taisnières(H)(FR)	Capsquare	Multilateral and anonymous trading, over the counter possible.		Rights-of-use (Daily) only via Capsquare, rights&obligations (yearly) over Capsquare or TSO. / Membership fees apply for Capsquare
F	Medelsheim(DE)/Obergailbach(FR)				
D	Waidhaus Oberkappel Bocholtz Bunde(DE)/Oude Statenzijl(H)(NL) Medelsheim(DE)/Obergailbach(FR) Winterswijk	Trac-x			EREGG GRI project for day-ahead secondary trading.
D	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE) Lasow	Trac-x			

D	Bunde(DE)/Oude Statenzijl(H)(NL) Mallnow	Trac-x			
IT	Gorizia(IT)/Sempeter(SI) Tarvisio(IT)/Arnoldstein(AT)	None.	Based on bilateral contracts between users.		Notification of bilateral contracts to TSO is necessary.
Country	IP	Trading platform	Procedure	Bulletin Board	Other information
PL	Mallnow				
PT	Badajoz(ES)/Campo Maior(PT)	None.	Bilateral contracts		Secondary market is seen as a tool to improve utilization profile if physical congestion. Contractual congestion is avoided with „capacity goes with consumers“ and ST-UIOLI.
RO	Negru Voda I - II				
SI	Gorizia(IT)/Sempeter(SI)	Webportal.		Access to information on supply/demand	TSO has to confirm technical possibility of realization of secondary contract.
SK	Lanzhot Baumgarten			Implemented	
ES	Larrau(ES)(F) Badajoz(ES)/Campo Maior(PT)	Through website.	Public procedure available online, templates, contract model.	Implemented	Requests sent to TSO, who matches offers/requests.
NL	Julianadorp(GTS)/Balgzand(BBL)		Emphasis on low administrative costs.	Implemented	NRA: secondary market does not work properly (reluctance to offer firm capacity non-anonymously).
NL	Bunde(DE)/Oude Statenzijl(H)(NL) Bocholtz Winterswijk	Platform online.			Secondary market does not work properly according to NRA (reluctance to offer firm capacity non-anonymously)..
UK	Bacton(BBL/INT)	Same as for purchase of primary capacity.		Implemented.	

NRAs and TSOs were asked to describe the requirements for users to participate in secondary market trading (*Q 4.4 What are the requirements for users to participate in facilities for secondary trading?*).

The analysis shows that registration is the most commonly applied requirement for users to be able to participate in secondary market trading. According to TSOs, this is followed by credit assessment and other requirements, whereas for NRAs, other requirements come second.

Fig. 14: Q 4.4 What are the requirements for users to participate in facilities for secondary trading?



Among these “other requirements”, the Belgian TSO stated that users have to submit a list of preferred trading partners and have to sign a contract with Capsquare in order to be able to participate in secondary market trading.

In Spain, all shippers “with access to basic network facilities of the Spanish gas system as provided in current regulations are able to participate in the facilities for secondary trading.” The Dutch TSO BBL specified that credit assessment is only required for assignments and not for the transfer of usage rights.

The French NRA also mentioned the existence of membership fees for its secondary market trading platform Capsquare (fixed membership fees and variable transaction fees for multilateral trading). In Slovenia, it is a requirement for users interested in participating in secondary trading to have already contracted capacity on the primary market with the TSO.

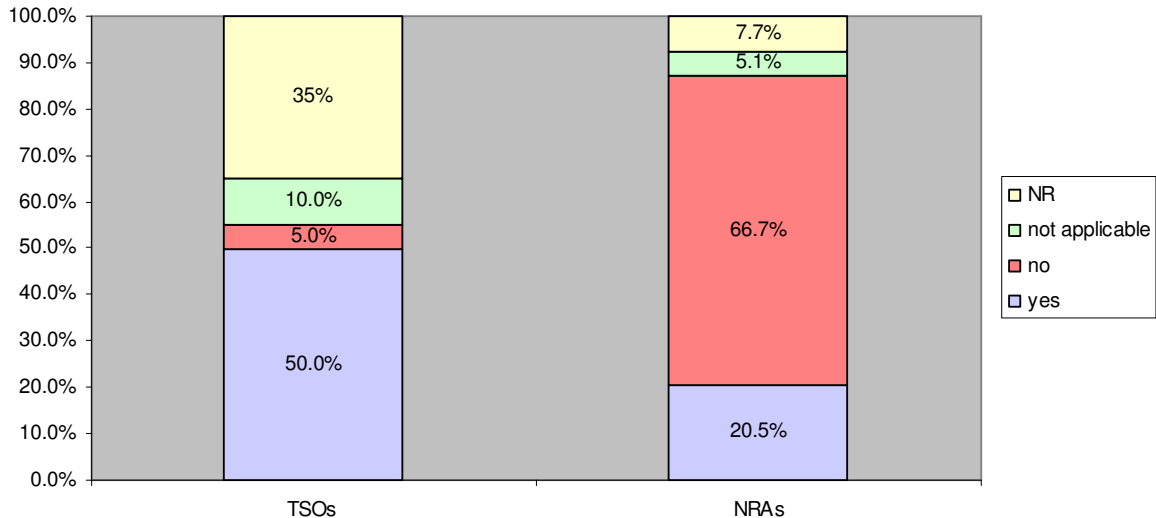
According to the Spanish NRA, all market participants with third party access rights in Spain are eligible to participate in secondary market trading. In the Netherlands, the requirement of a credit assessment is explained by the fact that only shippers may trade and all shippers need such an assessment anyway.

3.5.4. Involvement of stakeholders in the development of secondary market trading facilities

A part of the questionnaire was intended to assess stakeholder involvement in the development of secondary market trading facilities. NRAs were not asked whether “stakeholders” had been involved, but

whether they themselves participated in the development of these facilities (Q 4.5 Have stakeholders [/ have you] been involved in the development of secondary trading facilities by the TSO?)

Fig. 15: Q.4.5 Have stakeholders [/ have you] been involved in the development of secondary trading facilities by the TSO?



There is a considerable difference between the NRAs' and the TSOs' assessment of actual stakeholders involvement. Whereas half of participants from TSOs assured that stakeholders have been involved, NRAs are apparently not part of these stakeholders since two thirds of them answered that they have not been involved in the development of secondary market trading facilities by TSOs in their jurisdiction.

A closer look at the responses provided by TSOs shows that stakeholder involvement covers participation in the ERGEG GRI NW project for "day-ahead products and procedures" in the case of the German IPs (this response was provided for IP's operated by OGE as well as Bunde, where Wingas is the TSO). Another aspect of stakeholder involvement mentioned by German TSOs is the "*German ordinance for developing a trading platform*". Stakeholders have been also involved in developing the national secondary trading platform trac-x.

The Slovakian TSO also answered that the secondary market "BBS was standardised within GRI SSE". BBL, the TSO operating at Julianadorp said it "*held discussions with customers in setting up the relevant contracts*".

Stakeholders were involved through the development of a "*full industry network code*" according to British TSO NationalGrid. The British NRA specified that it had required the TSO to facilitate secondary trading.

Those NRAs that have been involved in developing secondary market facilities provided details on their contribution. In Belgium – where the TSO has developed the bulletin board itself – an assignment clause foreseen in the transportation contracts was presented to the regulatory authority.

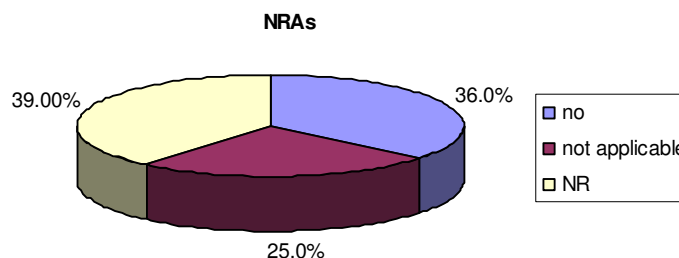
The French NRA had a more active role and contributed to the launch of the Capsquare trading platform, “*notably through deliberations and tariff setting*”.

The Italian NRA had an “*important role*” to play in the approval process for network codes, which also covers provisions for secondary trading. The Slovenian NRA stated that they had the possibility to check and confirm the act which “*defines the way of operating of the secondary market*”.

Subsequent to meetings between the Spanish NRA and TSO, the NRA issued non-binding reports on questions raised by the TSO and shippers. A “non-binding proposal” was sent to the Ministry of Industry for approval.

Given that there was no actual involvement of NRAs in the process of developing secondary trading facilities for many of the selected IPs, it was interesting to deepen this question by asking whether the TSOs had at least given the opportunity to NRAs to provide input (Q 4.5.2 If no, has the TSO given you the opportunity to be involved in the development of secondary trading facilities?).

Fig. 16: Q.4.5.2 If no, has the TSO given you the opportunity to be involved in the development of secondary trading facilities?



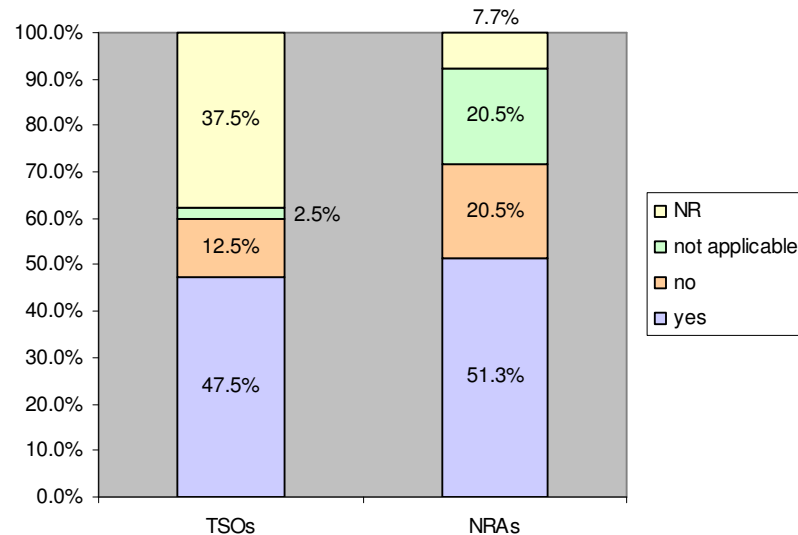
Only one response was submitted from the TSOs’ side on this question. The Spanish TSO said they “*made proposals to the competent regulators to develop detailed regulations which would have allowed stakeholders to participate in the development.*” Despite this request, the proposals “*have not been followed*” by regulators. In order to comply with Regulation (EC) 1775/2005, Enagas then “*developed within the scope of the existing regulation*” the rules currently in place.

More than one third of NRAs said that they have not been given this opportunity and a quarter stated that the question was not applicable to their case.

3.5.5. Actual use of and ways to improve secondary market facilities

Before analysing the judgement made by TSOs and NRAs on the quality of secondary trading facilities in place, an assessment of the actual use of these facilities at IPs is being given:

Fig. 17: Q 4.7. Are secondary trading facilities being used by the users?



Even for this rather objective question, TSOs and NRAs seem to have a different perception of the actual use of secondary trading facilities. One fifth of NRAs respondents considered secondary trading facilities as not being used by users, whereas only 12% of respondents from TSOs were of this opinion. However, it should be underlined that the number of responses from TSOs was much smaller and responses thus less representative. A majority of those TSOs who did respond, however, indicated that secondary trading facilities are effectively being used.

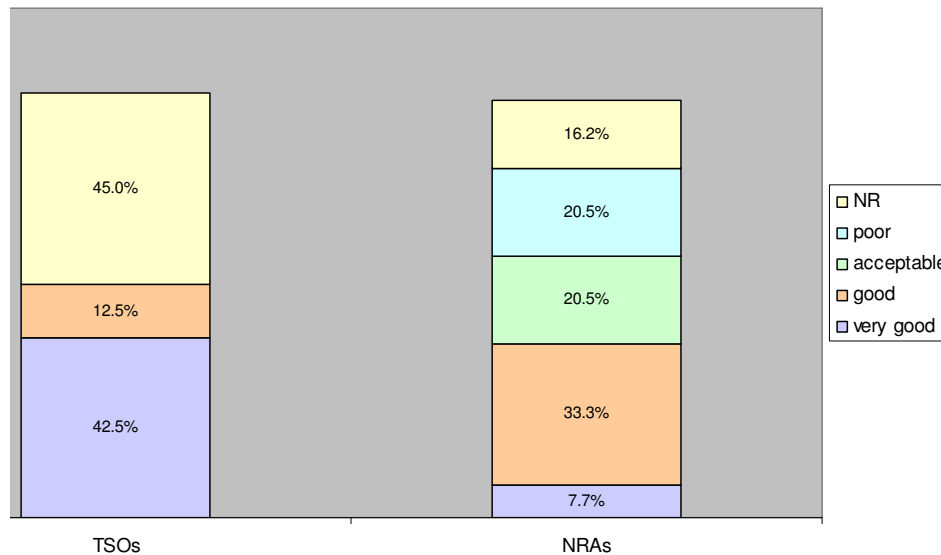
Once an overview of steps taken by TSOs had been provided, the survey enquired about opinions on possible improvements TSOs could make to facilitate secondary trading (*Q 4.2.2 If not, what further steps should the TSO take?*). There were only responses for Poland and the Netherlands on this issue.

The Polish NRA and TSO agreed on the fact that the TSO should prepare an online platform “*encouraging and informing the existing clients of that possibility*”.

The Dutch NRA provided an interesting assessment of the situation of secondary market trading and the main obstacle to its full development: “[...] *The TSO could take further steps to enhance the trading on the secondary market. The problem is: they have an incentive not to promote secondary trading because they also sell interruptible capacity. When, due to improved secondary trading, the utilisation rate of firm capacity improves, the value of interruptible capacity drops and, with that, the income of the TSO*”.

Before taking a closer look on the actual use of secondary market trading facilities, respondents were asked to rate the quality of these facilities on a scale ranging from poor to acceptable, good and very good.

Fig. 18: Q.4.6 How do you rate the usability of the facilities for secondary trading?

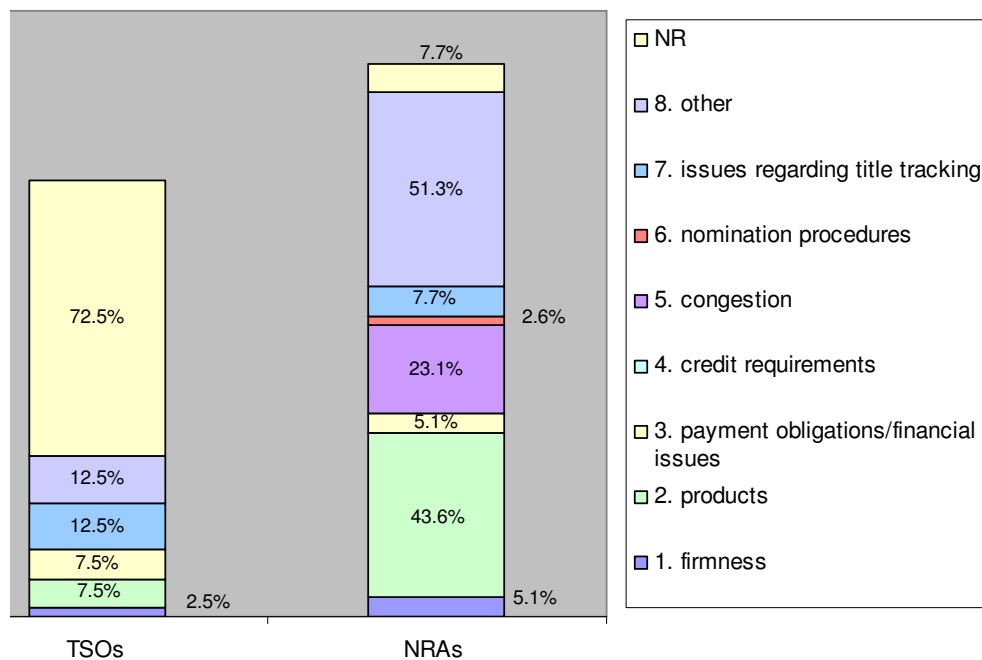


The difference between the assessment made by TSOs and NRAs is as striking as it is understandable. All TSOs considered the secondary trading facilities either as “very good” or “good”. The picture is different with NRAs of whom one fifth finds the facilities of “poor” quality and one fifth of “acceptable” quality.

Nevertheless, 33,3% of Regulators seem satisfied with facilities in place (“good”). However, only 7,7% think they are “very good”. The worst rating for secondary trading facilities was submitted by the Spanish NRA for Larrau and Badajoz as well as for the Austrian IPs in the survey and all Belgian IPs. The facilities in place at the Dutch and Czech IP’s surveyed were deemed “acceptable” by the respective NRAs.

Answers to question 4.7 “*Are the secondary trading facilities being used by users?*” show another difference in the assessment of the situation of secondary market trading between NRAs and TSOs. A large majority of respondents from TSOs are convinced that users effectively use the secondary trading facilities in place, whereas only slightly more than half of respondents from NRAs are of the same opinion. The number of responses received from TSOs to question 4.7.1 (If yes, please specify) is too low to give a representative picture of actual flows.

The last questions on secondary market trading asked for views on potential obstacles to fully functioning secondary trading facilities (*Q 4.8. What are possible obstacles to fully functioning secondary markets for capacity?*) and ways to achieve improvements (*Q 4.9. What should be done to promote secondary market trading?*).

Fig. 19: Q 4.8. What are possible obstacles to fully functioning secondary markets for capacity?


According to two TSOs responses, issues regarding tracking and “other” issues are the main obstacles to fully functioning secondary markets. NRAs rather saw problems related to products as well as “other” issues which will be analysed further. Before that, the role of congestion as an obstacle to secondary market trading receives attention. Whereas 23% of NRAs considered congestion as a main obstacle (the issue ranks 3rd among all categories) no TSO shared this view. At the same time, payment obligations and financial issues are an issue of concern for TSOs but less so for NRAs.

Both groups of respondents agreed on the fact that firmness and nomination procedures are no major obstacles to a well functioning secondary market.

An analysis of details provided under the “other, please specify” section of this question gives valuable insights to the NRAs’ and TSOs’ assessment of obstacles.

According to the Austrian NRA, the fact that trading cannot be done anonymously is a major disadvantage, whereas the Czech NRA does not see the relevance of secondary market trading at its IPs given the booking situation there. The Dutch NRA also named the lack of anonymity as a major problem, together with the lack of incentives for TSOs to improve secondary trading facilities.

The issue of anonymity was also mentioned by the Belgian TSO Fluxys, but according to responses received from this TSO, “shippers are reluctant to expose their position (buy or sell) even anonymously”. The availability of primary capacity at the Belgian IPs is another reason why secondary markets are not fully used according to the TSO.

The French NRA named three main reasons why secondary trading does not work to its full satisfaction at the selected IPs, namely the lack of economic interest in selling capacity “considering the overall value of

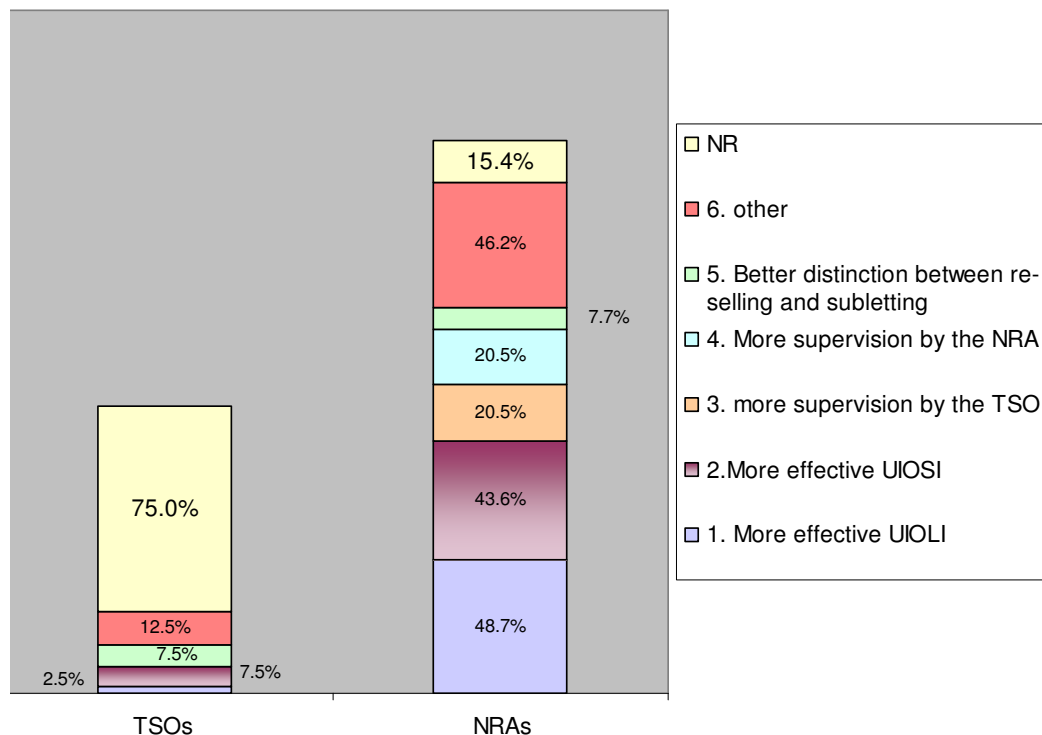
capacity in the gas chain”, the “lack of combined products” on a cross-border level and the “general lack of liquidity”.

The British NRA identified a potential obstacle to secondary trading at Bacton, but which has not prevented the system from functioning until now: At the moment, if users sell entry capacity on the secondary market, “the financial liabilities remain within the original capacity holder due to restrictions with the system”. This is not the case for exit capacity, which can be traded along with the financial obligations associated to them.

The Portuguese NRA believed that the time horizon for capacity products on sale is too short and the CAM in place at Badajoz avoid contractual congestion and therefore reduces the relevance of secondary market trading. At Larrau, according to the Spanish NRA, as well as in Slovakia, the non-existence of contractual and physical congestion and thus the availability of capacity on the primary market reduce the need for secondary market facilities. The Spanish TSO saw a lack of CMP harmonisation as an obstacle to fully functioning secondary market facilities.

Once the obstacles were identified, survey participants were asked to provide their opinion on how the system could be improved (*Q 4. 9. What should be done to promote secondary market trading?*).

Fig. 20: Q 4. 9. What should be done to promote secondary market trading?



More effective UIOSI (use-it-or-sell-it) and UIOLI procedures seem to be a possible way forward for both NRAs and TSOs. A better distinction between re-selling and subletting is an item mentioned by both TSOs and NRAs, but the latter put a greater emphasis on more supervision by the TSO and the NRA.

Only the Spanish TSO made a concrete suggestion on how to improve secondary market trading, namely the introduction of “ship or pay” obligations in long-term contracts in Spain.

Concrete suggestions on the improvement of secondary trading facilities submitted by NRAs include the Belgian regulator’s call for moving from “*facilitating the secondary market (bulletin board) to organising it*”, namely by establishing a “*capacity trading platform*”.

The French NRA’s view of the situation was that “*for shippers, primary and secondary markets cannot be structured separately.*” Therefore, an “*objective should be to achieve operation consistency with the proposals developed by ERGEG in the Framework Guideline on CAM and in the recommendations on congestion management procedures*”. Such a step would help to concentrate liquidity on platforms and might translate into the “*implementation of combined products*”.

The British NRA suggested that financial liabilities could be transferred along with entry capacity from one shipper to another.

Harmonisation seems to be key for the Italian and Spanish NRAs with Spain emphasising the importance of coordinated procedures and Italy of harmonised products on both sides of the IPs.

The Dutch NRA even suggested the implementation of a new tariffication system, where “*the selling of interruptible capacity is not a source of income for the TSO*”, but where TSOs might be obliged to use profits for solving contractual capacity.

The Slovenian NRA indicated that stricter rules for imbalance charging might be useful to enhance secondary market trading.

Table 4: Overview of suggestions made to improve secondary market trading

Country	Suggestion
BE	Effectively organizing secondary market, offering entry/exit products
FR	Improve consistency with ERGEG CAM/CMP guidelines to improve liquidity & combined products.
UK	Transfer financial liabilities together with usage rights in case of entry capacity.
IT	More harmonisation of products.
SI	Stricter rules for imbalance charging.
ES	Better coordination of procedures. TSO: introduce Ship or Pay obligations in long-term contracts.

NL	Tarification system without profits for sale of interruptible capacity (profits to be used for measures against congestion).
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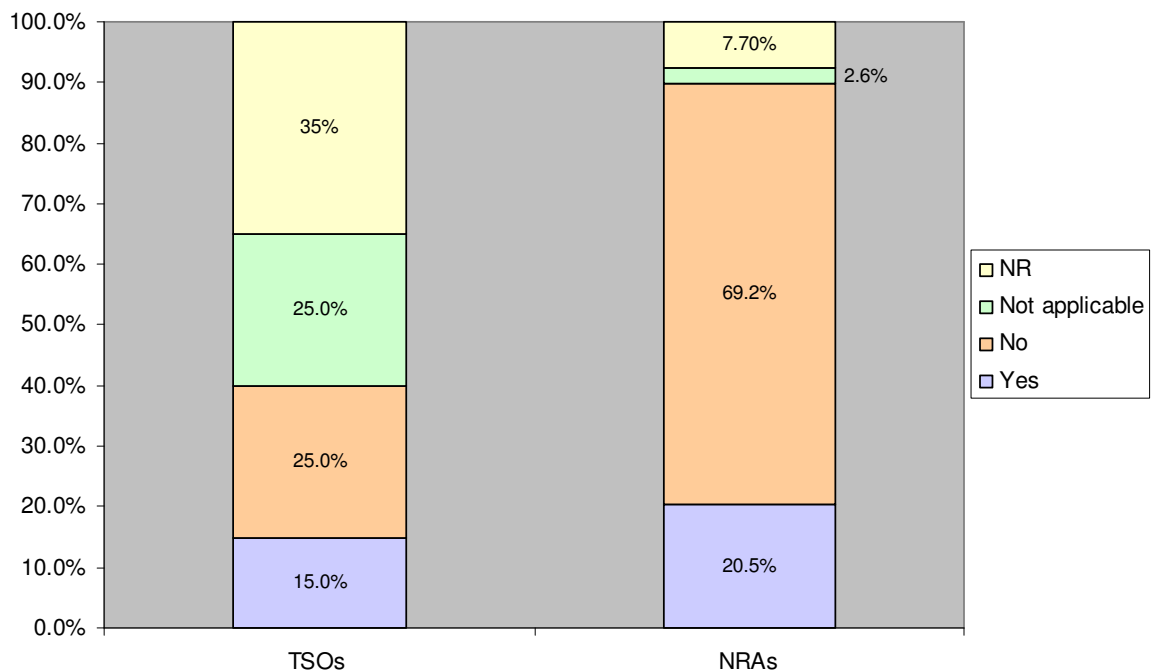
3.6 Harmonisation of contracts as well as CAMs and CMPs at selected European IPs

The last questions were intended to find out more about the existence of harmonised contracts and the reasons for their implementation.

3.6.1 Existence of harmonised procedures at IPs

Question 5.1 “*Are there harmonised contracts and CAMs and CMPs at the IP?*” was deemed non applicable by a high number of TSOs, whereas most NRAs answered negatively:

Fig. 21: Are there harmonised contracts and CAMs and CMPs at the IP?



An overwhelming majority of NRAs answered that there are no harmonised contracts at IPs in their jurisdiction; however, about a quarter of both NRAs and TSOs confirmed that there are harmonised contracts available.

In general it can be argued that harmonised contracts as well as harmonised CAMs and CMPs at both sides of IPs would decrease shippers’ transaction costs and thus would benefit the development of an internal market.

3.6.2 Justifications for the existence or absence of harmonised procedures

Survey participants were furthermore asked to provide explanations on why there are (*Q.5.2 If yes, please explain*) or are no (*Q. 5.3 If no, please explain*) harmonised contracts at the IPs concerned.

According to the Austrian NRA, the harmonised contracts “*contain provisions on CAM and CMP and have been approved by the NRA*”. According to respondents from Belgium, there is a uniform standard transportation contract everywhere in Belgium. The NRA further specifies that a “*subscription period system*” has been set up by the TSO for the last two years.

However, the Belgian TSO added that the regulatory framework is different in each country and no harmonised contracts are therefore in place.

The French-Spanish IP in Larrau is an example for how harmonised procedures increase efficiency. At this IP, joint harmonised procedures are now applied for capacity allocation, but not yet for congestion management. Daily products are not concerned by the joint procedures. Long-term UIOLI is used on both sides of the border, but there are differences regarding the detailed application, furthermore, short-term UIOLI only exists on the French side of the IP. The Spanish NRA explained for Larrau, that regulators now started developing a common CMP for the IP.

As far as the German IPs are concerned, the TSO Ontras announced at the time of the survey that subject to agreement with its Czech counterpart Net4Gas, a set of harmonised procedures should be put in place at the IP at Horá Svaté Kateriny, improving the interoperability of the “*interconnected pipeline system and facilitate efficient and reliable operations at the IP*”.

When it comes to cooperation between Ontras and its Polish counterpart, according to the response received, an Interconnection Agreement is already in place, “*organising cooperation regarding dispatching, management and matching of nominations, allocation procedures, management of transport parameters, exchange of meter data, technical conditions for operating the border stations and the exchange of experiences concerning operation of a transmission pipeline system.*”

The Spanish-Portuguese cooperation at Badajoz includes the application of FCFS on both sides of the border, but according to the Spanish TSO, no long-term products are available in Portugal and CMPs are not harmonised. The Portuguese TSO adds that there are different regulatory systems in place in both countries that “*will be harmonised with the inception of Mibgas (Iberian Natural Gas Market)*”.

On the Spanish side of the IP, in Badajoz, the capacity allocation procedure is “*based on a booking scheme for both short term and long term products, on a FCFS basis*”, whereas on the Portuguese side in Campo Maior, “*capacity allocation for gas day D only becomes firm on gas day D-1 and there is no pre-paid booking scheme.*” In case of congestion, an auction is carried out. Shippers only pay for capacity effectively used, the rest being made available to third parties. The Portuguese TSO furthermore specifies that “*no congestion situations have occurred at this entry point into the Portuguese gas system*”. Interestingly, the Spanish NRA states that there is “*no demand*” for harmonised procedures; nevertheless, the Portuguese and Spanish regulators apparently consider cooperating to establish common CAMs.

Different regulatory schemes on both sides of the border are named as reasons for the lack of harmonised contracts by the Slovakian TSO as well as the Czech NRA. However, the Slovakian TSO adds that in its view the lack of harmonisation has not been a problem so far.

The Polish NRA indicates that harmonised contracts are in preparation, but do not exist as for today.

The French NRA provides details on the differences between procedures of German TSOs and the French system: *“German TSOs use the FCFS rule only and do not offer short-term products. Also, the “last come, first interrupted” methodology is used in Germany whereas capacity is interrupted on a pro-rata basis in France. As for CMPs, secondary markets work very differently in the two countries and there is no short-term UIOLI offered in Germany”*. The German NRA sees a reason for the lack of harmonisation in the fact that TSOs are not obliged by law to introduce this kind of procedures.

A lack of harmonisation is also observed by the Italian NRA for the IPs in its jurisdiction.

Procedures differ widely at the IP in Bacton with the British NRA specifying that CAMs, capacity products and CMPs differ. For the latter, interruptible UIOLI is applied at the UK side and firm UIOLI by the TSO BBL. The British TSO understands the question of harmonisation on a national level and states that the same CAMs and CMPs are applicable at all points within Great Britain.

Finally, the Dutch NRA also confirms there are no harmonised contracts and that there is only one CAM (FCFS) and one CMP (selling of interruptible capacity) in place.

4. Conclusion and way forward

A first assessment of CAMs implemented at IPs in Europe shows that the procedures in place vary considerably from one point to another. Mechanisms in place are FCFS, open subscription periods with pro-rata and auctions, whereas FCFS is used predominately. Auctions are only applied for a small percentage of the surveyed IPs. The variety of mechanisms constitutes an obstacle for the harmonisation of procedures in the European gas market and, thus, a barrier to increasing liquidity, and is perceived as a problem by a number of TSOs and NRAs. The example of the IP at Larrau on the Spanish-French border shows that harmonising procedures for CAM and nomination leads to more efficient handling of user requests and a smoother functioning of operations. Furthermore, the survey showed that for only less than half of the surveyed IPs the EASEE-gas common business practices for nomination procedures were used, for the rest "other" procedures are applied. For the rest of IPs nomination procedures mainly differ regarding nominations or re-nominations deadlines. The survey also shows that little information is available on how the reservation for short-term capacity products is achieved.

According to Article 5 (1) of Regulation (EC) 1775/2005 TSOs shall maximise the level of available capacities. The survey showed that according to TSOs most of the covered TSOs do cooperate with the adjacent TSO in this respect. Almost all of them answered that they invest in their network to maximise the level of available capacities, measures which increase the efficiency of use are only applied by a minor number of TSOs.

Only a small number of TSOs provided information on their view regarding potential obstacles to fully functioning CAMs. However, "other obstacles" constituted the most important obstacle, followed by payment obligations /financial issues, problems with nomination procedures/balancing as well as credit requirements and products as well as issues regarding tracking. A closer look at the detailed comments provided by TSOs and NRAs shows that a lack of harmonisation of procedures and CAMs is a problem at several IPs. In the view of a majority of NRAs, congestions are a potential obstacle.

The assessment of congestions at IPs and the measures taken to resolve the problems linked thereto differ widely throughout Europe. In general NRAs answered that for more than half of the surveyed IPs contractual congestion exists, whereas in the view of TSOs this applies for a far smaller percentage. Physical congestion seems to be, compared to contractual congestion, a lesser problem. According to a quarter of participants from NRAs physical congestion exists at the surveyed IPs (TSOs 5%). In general it seems that a more detailed common definition of contractual congestion is necessary. Harmonised CMPs are essential to well functioning gas markets in the EU. Common CMPs should include the maximisation of technical capacities and available capacities on a firm basis. For most IPs in the survey, a secondary market is established (55% of participants gave this response) and a long-term UIOLI (47.5%) is in place. Short-term UIOLI is in place according to only 37.5% of participants from TSOs, whereas 51.3% of NRAs answered that this mechanism is in place. Furthermore, the survey showed that offering interruptible capacities is rather often applied. 42.5% of TSOs and 79.5% of NRAs stated that in the event of congestion unused capacities should be offered to the primary market, with a high rate of missing responses from TSOs. The biggest share of participants from both TSOs and NRAs think this should be done on a day-ahead interruptible basis.

Regarding the development of secondary markets TSOs were asked whether stakeholders have been involved in this process, and NRAs were asked if they have been involved in it. Two thirds of NRAs answered “no” and half of TSOs answered “yes”. According to most TSOs the usability of the facilities is “very good”, however, NRAs assess the usability of the surveyed IPs as “poor” or “acceptable” in slightly less than half of all cases. Regarding the way to promote secondary markets the views of TSOs and NRAs differ, too. About half of the answers received from NRAs asked for more effective UIOLI and more effective UIOSI, whereas only a very low percentage of participants from TSOs asked for more effective UIOLI and only a few more for more effective UIOSI. However, a wider use of long-term UIOLI procedures appears as a reasonable possibility to reduce the problems linked to congestion for users. Further possibilities include the surrender of booked capacity and making available firm day-ahead capacity.

The harmonisation of contracts as well as CAMs and CMPs at both sides of IPs is an essential element on the path to the establishment of the internal gas market. Only 15% of TSOs and 20.5% of NRAs could affirm that there are harmonised procedures in place at the moment.

As a general conclusion it can be stated that due to the different answers received from TSOs and NRAs there is a further need for harmonisation and for common definitions.

Three key priorities were identified in this survey in order to improve the efficiency of CMPs and CAMs at IPs in Europe:

- i. Improve harmonisation of CAM and CMP at IPs**
- ii. Functioning of secondary market trading facilities is limited**
- iii. Increase the coordination and cooperation of TSOs and NRAs**

The pilot Framework Guideline on CAM provides significant steps towards these objectives with the harmonisation of CAMs in Europe (implementation of auctions), the reinforcement of the cooperation between TSOs and the standardisation of the gas day. Auctions will furthermore provide appropriate economic signals for the efficient use of capacities and facilitate investment in new infrastructure, where necessary.

5. Annex

Table 5: Questionnaire NRAs

QUESTIONNAIRE (NRA)

1	1.1	Is there physical congestion in the selected network(s)?
2	1.2	Is there contractual congestion in the selected network(s)?
3	1.3	Do users have problems in contracting the capacity they need?
4	1.3.1	If yes, please give details of the main problems users face
5	1.4	What is the nomination procedure in place?
6	1.5	Are all shippers obliged to nominate?
7	1.5.1	If not, why not?
		Which capacity allocation mechanism (CAM) does the TSO apply for primary capacity?
8	2.1	<ol style="list-style-type: none"> 1. open subscription period with pro rata 2. open subscription period with auction 3. open subscription period without auction 4. first come first served 5. lottery 6. other, please specify
9	2.2	Are short-term capacity products available, either on a short term basis (lead time) or short term nature of the product?
10	2.2.1	How short is short-term?
11	2.2.2	If yes, what is the percentage of reservation for products with short term lead time (as opposed to long-term lead time)
12	2.3	How is this reservation for short-term capacity products achieved?
		Which tools does the TSO/do the TSOs in your jurisdiction apply to maximise the level of available capacity? (Art. 5 Para 1)
13	2.4	<ol style="list-style-type: none"> 1. co-operation with adjacent TSOs 2. assistance contracts with adjacent TSO 3. use of storage capacities 4. adjustments of operational constraints (e.g. pressure promises) 5. capacity buy-back mechanisms and careful oversell of capacities 6. commitments to nominate on your request 7. investment in pipelines, compression, connections 8. others, please specify
14	2.5	Are CAMs applied at the Interconnection point compatible with national network access system? (Art 5 Para1)
15	2.5.1	If not, why not? If yes, why?

		What are potential obstacles to fully functioning CAMs at the interconnection point?
16	2.6	<ol style="list-style-type: none"> 1. firmness 2. products 3. payment obligations/financial issues 4. credit requirements 5. congestion 6. nomination procedures/balancing 7. issues regarding title tracking 8. other [please specify]
17	3.1	<p>In the event of congestion what is the congestion mechanism procedure applied?</p> <ol style="list-style-type: none"> 1. short term use-it-or-lose-it (ST UIOLI) 2. long term use-it-or-lose-it (LT UIOLI) 3. Secondary market 4. Other (please specify)
18	3.2	<p>In principle, in the event of contractual congestion, should unused capacity be offered to the primary market?</p> <p>If yes, please specify: What kind of capacity</p>
19	3.2.1	<ol style="list-style-type: none"> 1. day-ahead firm capacity 2. day-ahead interruptible capacity 3. other firm capacity 4. other interruptible capacity 5. other (please specify)
20	3.2.2	<p>If yes: How should unused capacity be offered to the primary market?</p>
21	3.3	<p>In practice, in the event of contractual congestion, is any contracted unused capacity normally made available on the primary market?</p> <p>If yes: please specify</p>
22	3.3.1	<ol style="list-style-type: none"> 1. day-ahead firm capacity 2. day-ahead interruptible capacity 3. other firm capacity 4. other interruptible capacity 5. other (please specify)
23	4.1	<p>Can users to re-sell or sublet contracted capacity on the secondary market? (Art. 5 Para 3, (b))</p>
24	4.2	<p>Has the TSO undertaken reasonable steps to allow capacity rights to be freely tradable? (Art. 8 Sentence 1)</p>
25	4.2.1	<p>If so, what?</p>
26	4.2.2	<p>If not, what further steps should the TSO take?</p>
27	4.3	<p>How does the secondary market trading work for the TSO system(s) in your jurisdiction?</p> <p>What are the requirements for users to participate in the facilities for secondary trading?</p>
28	4.4	<ol style="list-style-type: none"> 1. registration 2. credit assessment 3. other, please specify
29	4.5	<p>Have you been involved in the development of secondary trading facilities by the TSOs?</p>
30	4.5.1	<p>If so, please specify</p>

31	4.5.2	If no, has the TSO given you the opportunity to be involved in the development of secondary trading facilities?
32	4.6	How do you rate the usability of the facilities for secondary trading?
33	4.7	Are the secondary trading facilities being used by the users? What are potential obstacles to fully functioning secondary markets for capacity?
34	4.8	<ol style="list-style-type: none"> 1. firmness 2. products 3. payment obligations/financial issues 4. credit requirements 5. congestion 6. nomination procedures 7. issues regarding title tracking 8. other What should be done to promote secondary market trading?
35	4.9	<ol style="list-style-type: none"> 1. More effective UIOLI 2. More effective UIOSI 3. More supervision by the TSO 4. More supervision by the NRA 5. Better distinction between re-selling and subletting 6. other
36	5.1	Are there harmonized contracts and CAMs and CMPs at the interconnection point?
37	5.2	If yes, please explain
38	5.3	If no, please explain

Table 6: Questionnaire TSOs

QUESTIONNAIRE (TSOs)	
N° in Quest.	Question
1.1	Is there physical congestion in the selected network(s)?
1.2	Is there contractual congestion in the selected network(s)?
1.3	Do users have problems in contracting the capacity they need?
1.3.1	If yes, please give details of the main problems users face
1.4	What is the nomination procedure in place?
1.5	Are all shippers obliged to nominate?
1.5.1	If not, why not?
2.1	Which capacity allocation mechanism (CAM) does the TSO apply for primary capacity? <ol style="list-style-type: none"> 1. open subscription period with pro rata 2. open subscription period with auction 3. open subscription period without auction 4. first come first served 5. lottery

	6. other, please specify
2.2	Are short-term capacity products available, either on a short term basis (lead time) or short term nature of the product?
2.2.1	How short is short-term?
2.2.2	If yes, what is the percentage of reservation for products with short term lead time (as opposed to long-term lead time)
2.3	How is this reservation for short-term capacity products achieved?
2.4	Which tools do you apply to maximise the level of available capacity? (Art. 5 Para 1) <ol style="list-style-type: none"> 1. co-operation with adjacent TSOs 2. assistance contracts with adjacent TSO 3. use of storage capacities 4. adjustments of operational constraints (e.g. pressure promises) 5. capacity buy-back mechanisms and careful oversell of capacities 6. commitments to nominate on your request 7. investment in pipelines, compression, connections 8. others, please specify
2.5	Are CAMs applied at the Interconnection point compatible with national network access system? (Art 5 Para1)
2.5.1	If not, why not? If yes, why?
2.6	What are potential obstacles to fully functioning CAMs at the interconnection point? <ol style="list-style-type: none"> 1. firmness 2. products 3. payment obligations/financial issues 4. credit requirements 5. congestion 6. nomination procedures/balancing 7. issues regarding title tracking 8. other [please specify]
3.1	In the event of congestion what is the congestion mechanism procedure applied? <ol style="list-style-type: none"> 1. short term use-it-or-loose-it (ST UIOLI) 2. long term use-it-or-loose-it (LT UIOLI) 3. Secondary market 4. Other (please specify)
3.2	In principle, in the event of contractual congestion, should unused capacity be offered to the primary market?
3.2.1	If yes, please specify: What kind of capacity <ol style="list-style-type: none"> 1. day-ahead firm capacity 2. day-ahead interruptible capacity 3. other firm capacity 4. other interruptible capacity 5. other (please specify)
3.2.2	If yes: How should unused capacity be offered to the primary market?

3.3	In practice, in the event of contractual congestion, is any contracted unused capacity normally made available on the primary market?
3.3.1	If yes: please specify <ol style="list-style-type: none"> 1. day-ahead firm capacity 2. day-ahead interruptible capacity 3. other firm capacity 4. other interruptible capacity 5. other (please specify)
4.1	Can users to re-sell or sublet contracted capacity on the secondary market? (Art. 5 Para 3, (b))
4.2	Has the TSO undertaken reasonable steps to allow capacity rights to be freely tradable? (Art. 8 Sentence 1)
4.2.1	If so, what?
4.2.2	If not, what further steps should the TSO take?
4.3	How does the secondary market trading work for the TSO system(s) in your jurisdiction?
4.4	What are the requirements for users to participate in the facilities for secondary trading? <ol style="list-style-type: none"> 1. registration 2. credit assessment 3. other, please specify
4.5	Have stakeholders been involved in the development of secondary trading facilities by the TSOs?
4.5.1	If so, please specify
4.5.2	If no, have you given stakeholders the opportunity to be involved in the development of secondary trading facilities?
4.6	How do you rate the usability of the facilities for secondary trading?
4.7	Are the secondary trading facilities being used by the users?
4.7.1	4.7.1 If yes: please specify <ol style="list-style-type: none"> 1. number of trades in 2008: offered 2. number of trades in 2008: bought 3. volume of capacity in 2008: offered 4. volume of capacity in 2008: bought 5. number of new primary contracts concluded in 2008 6. volume of new primary contracts concluded in 2008
4.8	What are potential obstacles to fully functioning secondary markets for capacity? <ol style="list-style-type: none"> 1. firmness 2. products 3. payment obligations/financial issues 4. credit requirements 5. congestion 6. nomination procedures 7. issues regarding title tracking 8. other

4.9	What should be done to promote secondary market trading? 1. More effective UIOLI 2. More effective UIOSI 3. More supervision by the TSO 4. More supervision by the NRA 5. Better distinction between re-selling and subletting 6. other
5.1	Are there harmonized contracts and CAMs and CMPs at the interconnection point?
5.2	If yes, please explain
5.3	If no, please explain

Table 7: Observations for NRAs (n=39)

N°	NRA	IP
1	AUSTRIA	Baumgarten
2	AUSTRIA	Oberkappel
3	AUSTRIA	Tarvisio(IT)/Arnoldstein(AT)
4	BELGIUM	Blaregnies Segeo(BE)/Taisnières(H)(FR)
5	BELGIUM	Hilvarenbeek/Poppel
6	BELGIUM	Zeebrugge IZT/HUB
7	BULGARIA	Negru Voda I-III
8	CZECH REPUBLIC	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE)
9	CZECH REPUBLIC	Lanzhot
10	CZECH REPUBLIC	Waidhaus
11	FRANCE	Medelsheim(DE)/Obergailbach(FR)
12	FRANCE	Blaregnies Segeo(BE)/Taisnières(H)(FR)
13	FRANCE	Larrau(ES)(F)
14	GERMANY	Mallnow
15	GERMANY	Lasow
16	GERMANY	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE)
17	GERMANY	Waidhaus
18	GERMANY	Oberkappel
19	GERMANY	Bocholtz
20	GERMANY	Bunde(DE)/Oude Statenzijl(H)(NL)
21	GERMANY	Medelsheim(DE)/Obergailbach(FR)
22	GERMANY	Winterswijk
23	GREAT BRITAIN	Bacton(BBL/INT)
24	ITALY	Gorizia(IT)/Sempeter(SI)
25	ITALY	Tarvisio(IT)/Arnoldstein(AT)
26	POLAND	Mallnow
27	POLAND	Lasow
28	PORTUGAL	Badajoz(ES)/Campo Maior(PT)
29	ROMANIA	Negru Voda I-III
30	SLOVAK REPUBLIC	Baumgarten
31	SLOVAK REPUBLIC	Lanzhot
32	SLOVENIA	Gorizia(IT)/Sempeter(SI)
33	SPAIN	Larrau(ES)(F)
34	SPAIN	Badajoz(ES)/Campo Maior(PT)
35	THE NETHERLANDS	Bocholtz
36	THE NETHERLANDS	Bunde(DE)/Oude Statenzijl(H)(NL)

37	THE NETHERLANDS	Hilvarenbeek/Poppel
38	THE NETHERLANDS	Julianadorp(GTS)/Balgzand(BBL)
39	THE NETHERLANDS	Winterswijk

Table 8: Observations for TSOs (n=40)

1	AT-22-BOGGS-B	BOG GmbH	Baumgarten
2	AT-22-TAGGS-9	TAG	Oberkappel
3	AT-22-WGOMV-D	WAG/OMV	Tarvisio(IT)/Arnoldstein(AT)
4	BE-22-FLUXY-8	Fluxys	Blaregnies Segeo(BE)/Taisnières(H)(FR)
5	BE-22-FLUXY-8		Hilvarenbeek/Poppel
6	BE-22-FLUXY-8		Zeebrugge IZT/HUB
7	BG-22-BTEAD-5	Bulgartransgaz EAD	Negru Voda
8	CZ-22-NET4G-V	Net4Gas	Lanzhot
9	CZ-22-NET4G-V	Net4Gas	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE)
10	CZ-22-NET4G-V	Net4Gas	Waidhaus
11	DE-22-EONGT-W	Eon Gastransport	Bocholtz
12	DE-22-EONGT-W		Bunde(DE)/Oude Statenzijl(H)(NL)
13	DE-22-EONGT-W		Bunde(DE)/Oude Statenzijl(H)(NL)
14	DE-22-EONGT-W		Medelsheim(DE)/Obergailbach(FR)
15	DE-22-EONGT-W		Oberkappel
16	DE-22-EONGT-W		Oberkappel
17	DE-22-EONGT-W		Waidhaus
18	DE-22-ONTRA-U	ONTRAS – VNG Gastransport GmbH	Hora Svate Kateriny (CZ)/Deutsch-Neudorf(DE)
19	DE-22-ONTRA-U		Lasow
20	DE-22-WINGS-S	Wingas	Bunde(DE)/Oude Statenzijl(H)(NL)
21	DE-22-WINGS-S		Mallnow
22	ES-22-ENAGS-R	Enagas	Badajoz(ES)/Campo Maior(PT)
23	ES-22-ENAGS-R		Larrau(ES)(F)
24	FR-22-GRTGZ-C	GRTgaz	Blaregnies Segeo(BE)/Taisnières(H)(FR)
24	FR-22-GRTGZ-C	GRTgaz	Medelsheim(DE)/Obergailbach(FR)
26	FR-22-TIGFF-2	TIGF	Larrau(ES)(F)
27	IT-22-SNAMG-8	Snam Rete Gas	Gorizia- Sempeter
28	IT-22-SNAMG-8		Tarvisio(IT)/Arnoldstein(AT)
29	NL-22-BBLCO-I	BBL company	Julianadorp(GTS)/Balgzand(BBL)
30	NL-22-GSTRP-4	GTStransport	Bunde(DE)/Oude Statenzijl(H)(NL)
31	NL-22-GSTRP-4	GTStransport	Bocholtz
31	NL-22-GSTRP-4	GTStransport	Hilvarenbeek/Poppel
33	NL-22-GSTRP-4	GTStransport	Winterswijk
34	PL-22-ERPGA-I	EuRoPol GAZ	Mallnow
35	PL-22-GSSYS-X	Gaz system	Lasow
36	PT-22-RENGS-3	REN Gasodutos	Badajoz(ES)/Campo Maior(PT)
37	RO-22-TRGAZ-J	Transgaz	
38	SK-22-EUSTR-V	eustream, a.s.	Baumgarten
39	SK-22-EUSTR-V		Lanzhot
40	UK-22-NGRID-K	National Grid	Bacton(BBL/INT)