





Triennium 2003 – 2006 Final results

Amsterdam, June 7th, 2006



Francesco Carìa, WOC3 S.G. 3.4 - Chairman





Overview Survey on TPA & Network Codes

- > In consideration of the development of:
- competition in gas supply and transport;
- Third Party Access;
- regulation on network access and security;
- Network Codes and associated tariff systems

and of the results of the world-wide survey carried out in the 2000

- 2003 triennium



IGU resolved to extend the survey into the 2003 – 2006 triennium, with the aim of:



- ✓ gaining an international picture of TPA/Network Codes;
- ✓ providing all IGU members with a benchmark analysis and a review of their own position.







Work methodology and roles Survey on TPA & Network Codes



> Annual questionnaire



to review the current situation in IGU countries and the expected development; circulated for 2003, 2004 and 2005;

Yearly publication of results

including an analysis of the expected evolution;

> Final report



to be presented at the 2006 WGC.

Snam Rete Gas



to send out questionnaire

> WOC 3 delegates



to provide answers

SRG/Active Members



to analyse results







Questionnaire – Main contents Survey on TPA & Network Codes



- > 46 questions, divided in 13 main categories:
 - general (asset description, peak flows);
 - market shares and ownership of assets;
 - competition in transport;
 - competition in supply;
 - storage;
 - balancing;
 - gas quality;
 - licensing regime;
 - Network Code;
 - capacity;
 - tariffs;
 - security of supply (added to the questionnaire for 2005).







TPA Index Survey on TPA & Network Codes



Survey response

A number of respectively 27 (2003), 29 (2004) and 24 (2005) Members provided responses to the questionnaire. Projection data of the previous year have been used for the analysis when specific data for a certain year were not available.

TPA Index

In order to provide an overall view of the development of TPA and facilitate comparison, a "TPA Index" has been introduced for each Country.

<u>TPA index calculation</u>: calculated on the basis of responses to 13 questions - same weights as in 2003, 2004 and 2005 for continuity.







TPA Index Survey on TPA & Network Codes



General trends in TPA Index

Average rate of increase of the TPA Index: 7% per annum between 2003 and 2005;

75% of the responding countries (18 on a total of 24) show a TPA Index above 50%, and an increasing result in respect of the previous triennium;

the highest values of TPA Index at the end of the triennium 2003 – 2006 are registered in UK, the Netherlands, Denmark, Italy and Austria;

The largest increase in TPA Index over the same period was registered in the Slovak Republic, Belgium and Czech Republic.









Question 8 – Section "Market share and ownership of assets"

Does the major gas transporter also supply gas to gas consumers?

IT AR AT
UK SK SI
ES CH AU
BE DK IE
HR BR
NL FI JP IR KR
PT SM UA PL
BA CZ FR MX
SE MY DE

■ Yes

■ No

IT AR AT
UK SK SI
ES CH DK
BE HR DE
IR KR BR

NL FI JP
PT SM
UA PL
CZ MY
SE

2005

Separation of roles is increasing: the number of major transporters also supplying gas to consumers shows a downward trend.



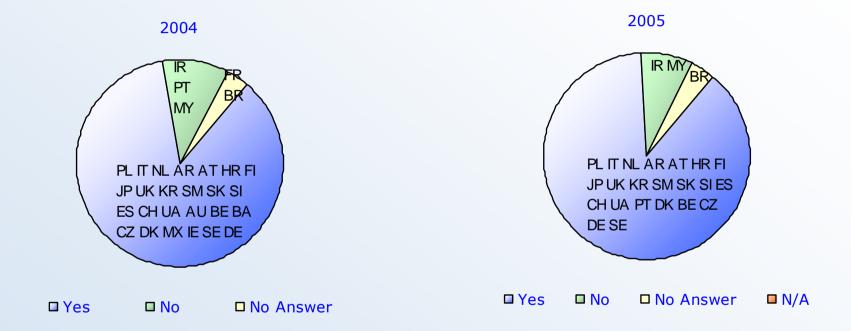






Question 11 – Section "Competition in transport"

Does the major gas transporter allow third party access?



Almost 90% of the countries involved in the analysis allow TPA: all European responding countries have implemented the EU Gas Directives.



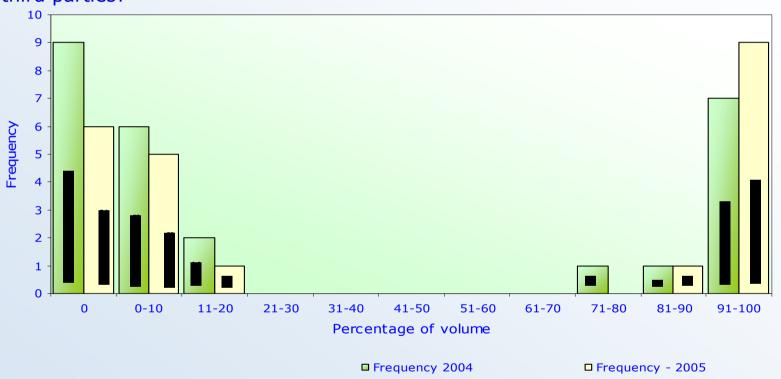






Question 12 – Section "Competition in transport"

What percentage of volume of the country's gas consumption is transported on behalf of third parties?





Two different "clusters" of answers: either from 0 to 20% or above 70%.

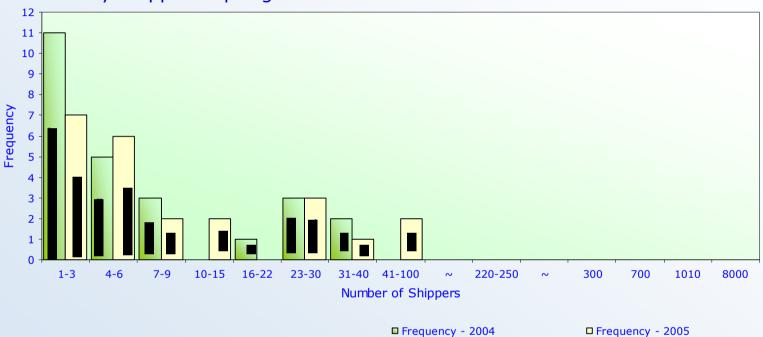






Question 14 – Section "Competition in transport"

How many Shippers input gas into the transmission network?



The number of Shippers is increasing everywhere, but the situation is different from Country to Country.



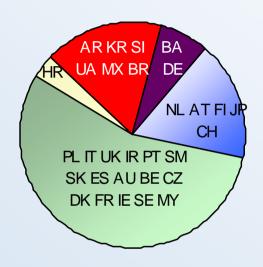




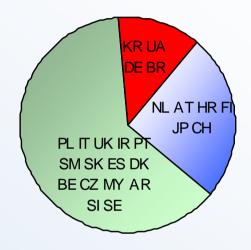


Question 23 – Section "Balancing"

How often are the suppliers required to balance the difference between inputs and outputs?



□ Hourly
□ Daily
□ Weekly
■ Monthly
■ Other



☐ Hourly ☐ Daily ☐ Weekly ☐ Monthly ☐ Other

Daily energy balancing more common than monthly or hourly.









Question 24 – Section "Balancing"

Is there a competitive market in acquiring and disposing of gas for balancing?

2005 2004 PLITARHRFI NL AT U PL AR HR FI T NL AT JP IR KR PT AU FR IE UK DK JP IR KR SM SM SK SI ES DK SK SI ES CH CZ CH UA BA CZ UA BE DE PT MX SE DE BE SE BR MY BR ■ Yes □ No ☐ Yes ☐ No ☐ No Answer

Less than 25% of the responding countries have a competitive market of gas for balancing.





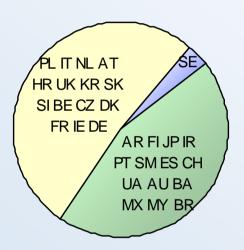




Question 29 – Section "Licensing regime"

Who regulates gas supply and transportation?

2004



□ Nobody □ Government □ Independent regulator



□ Government Department □ Independent regulator □ Other



Increasing number of Countries that have adopted an independent regulatory body.







Question 32 – Section "Network Code"

Is there a published network code available to all suppliers?

2004 2005 PL KR PT SM PL KR SN ES BA MX MY PT CZ MY IT NL AR AT HR FI IT NL AR AT HR FIJP JP UK IR SK SI CH UK IR SK SI ES CH UA UA AU BE DK FR IE DK BE CZ DE SE BR SE DE BR ■ Yes □ No ■ Yes □ No

The positive trend confirms that published network codes are increasingly available to all suppliers.





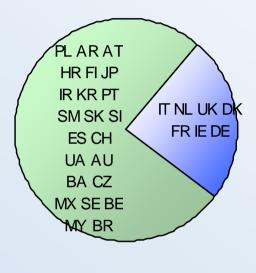




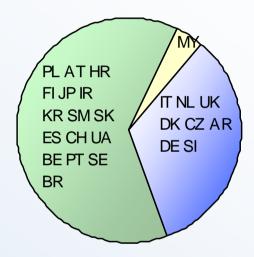
Question 37 – Section "Capacity"

Is there an organized capacity trading system open to all?

2004



☐ Yes ☐ No



☐ Yes ☐ No ☐ No Answer

An increasing number of countries is adopting information system to support capacity trading.









Question 40 – Section "Tariffs"

Does the major gas transporter provide published standard transport rates for all suppliers?

PL IT NL AR AT HR FI
JP UK IR SK ES CH UA
AU BE DK FR IE SE DE
CZ

☐ Yes ☐ No ☐ No Answer

PL IT NL AR AT HR FI
JP UK SK ES CH UA
DK BE CZ DE KR SI
SE

2005

☐ Yes ☐ No ☐ No Answer

Standard transport rates are published in almost 80% of the responding countries.







..a new section -"Security of Supply" 1 / 4



Question 43

In the present situation of the gas market in your country, who is responsible for ensuring the availability (at all times) of sufficient quantities of gas to meet market demand?

	Country	answer		Country	answer
AR	Argentina	Government	JP	Japan	LDCs
AT	Austria	Control area manager	МУ	Malesia	Suppliers
BA	Brasil	None (Until know Brazil did not found itself in a problem of security of supply)	NL	The Netherlands	Shippers together plus TSO
CZ	Czech Republic	Shippers	PT	Portugal	Transgas
ES	Espana	Transporters for Regulated Market and Suppliers for liberalized Market	SI	Slovenia	Suppliers
FI	Finland	Gasum Oy	KR	South Korea	Transporter
DE	Germany	Shippers	SE	Sweden	Indipendent authority
IT	Italy	Shippers	UK	United Kingdom	Suppliers
IR	Iran	Supplier in coordination with major transporter			

Responses are extremely diversified among responding countries.





..a new section -"Security of Supply" 2 / 4



Question 44

Is the present situation in force on the basis of specific law/regulation or on the basis of free contractual arrangement between the parties?

	Country	answer		Country	answer
AR	Argentina	Specific law/regulation	JP	Japan	Specific law/regulation
AT	Austria	Specific law/regulation	МУ	Malesia	Free contractual arrangement between the parties
BA	Brasil	Free contractual arrangement between the parties	Z	The Netherlands	Specific law/regulation
CZ	Czech Republic	Specific law/regulation	PT	Portugal	Specific law/regulation
ES	Espana	Specific law/regulation	SI	Slovenia	Free contractual arrangement between the parties
FI	Finland	Specific law/regulation	KR	South Korea	parties Free contractual arrangement between the parties
DE	Germany	Free contractual arrangement between the parties	SE	Sweden	Specific law/regulation
IT	Italy	Specific law/regulation	UK	United Kingdom	Specific law/regulation
IR	Iran	Free contractual arrangement between the parties			



In the majority of responding countries the present situation is in force on the basis of specific law/regulation.





..a new section -"Security of Supply" 3 / 4

Question 45

Concerning the availability of gas, what are the design criteria concerning the minimum level of security that must be met?

	Country	answer		Country	answer
AR	Argentina	Other:The transportation system is designed for the whole firm capacity contracted.	JР	Japan	1 in 10 peak cold winter/day
AT	Austria	Other: A design criteria doesn't exist but long term planning by the area control manager is intended for purposes of security.	му	Malesia	Other: Minimum gas quantity obligation and minimum gas pressure at delivery point
BA	Brasil		NL	The Netherlands	1 in 50 peak cold winter/day
CZ	Czech Republic	1 in 20 peak cold winter/day	PT	Portugal	Other
ES	Espana	1 in 10 peak cold winter/day	SI	Slovenia	Other: It is not specified. It will be specified, accordingly to EU Directive of Security of Supply.
FI	Finland	Other: The amount of peak days during winter time is difficult to estimate beforehand. Depending on contractual situation, available transportation capacity etc Gasum makes his planning for security of supply annually.	KR	South Korea	1 in 20 peak cold winter/day
DE	Germany	Other	SE	Sweden	Other
IT	Italy	1 in 20 peak cold winter/day	UK	United Kingdom	1 in 20 peak cold winter/day
IR	Iran	1 in 10 peak cold winter/day			



Very diversified design criteria concerning the minimum level of security.









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