

“A Gas Price Hub for SE Europe and the Role of Turkey”

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INSTITUTE OF ENERGY
FOR SOUTH EAST EUROPE



Presentation Outline



1. Introductory remarks
2. SE Europe's oil and gas dependency
3. The South Corridor and the changing picture of gas supply in SE Europe
4. Current and future gas demand in Bulgaria, Greece, Romania, Turkey
5. The existing gas price regime in Europe and beyond
6. Continental European gas hubs
7. The role of gas hubs in promoting market transparency and price competition
8. A gas price hub for SE Europe and the role of Turkey
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Introductory Remarks



- ❑ At a time of geopolitical and financial market turbulence the case for regional cooperation is becoming ever more apparent while the need for cross border trading is strengthened.
- ❑ In spite, or because, of geopolitical friction (read Syria's conflict, Arab Spring) and continuing eurozone instability oil prices, and directly linked gas prices, have remained exceptionally high over the last 2 years.
- ❑ At the same time gas has emerged as a dynamic energy commodity on which almost all countries of the SE European region are dependent.
- ❑ Natural gas continues to take a slice away from oil in most countries and to re-align its contribution in the global and regional energy mix.
- ❑ Unlike oil, gas prices are not the same in different geographical areas and unlike oil, gas prices are not that transparent
- ❑ The emergence of gas hubs, mainly in Europe, have contributed to increased gas trading, price competition and price transparency and in many case have led to reduced tariffs.
- ❑ The creation of a regional gas hub in SE Europe over the next five (5) years is desirable and for this to happen close cooperation is necessary by all neighbouring countries (e.g. Bulgaria, Greece, and Turkey).
- ❑ Turkey, because of the size of its gas market and its geographical proximity to European gas markets has a key role to play in the development of such a hub.



SE Europe's Oil & Gas Dependency

- ❑ The SE European region is over dependent on oil and gas imports
- ❑ On the strength of 2011 figures the region's 12 countries consumed 1.761,47 barrels per day (bpd) and imported 1.543,67 bpd which means that there are 88% dependent on oil imports
- ❑ In the case of gas these countries consumed 69 bcm in 2011 and imported 55.0 bcm, i.e. they were dependent to the tune of 74% on gas imports
- ❑ S.E. European Countries, including Turkey, pay substantial amounts of money, disproportionately high related to their GDP for oil and gas imports
- ❑ The 12 SE European countries paid some 55 billion Euro (US\$ 69 billion) gross, to import oil and some 28 billion Euros to import gas which corresponds to approx 6.0% of their GDP (net imports are lower at 49 billion Euros for oil and 22 billion Euros for gas)

The South East Region Defined



SE Europe Basic Economic & Energy Parameters (2011)



<input type="checkbox"/> Population	137.02 million
<input type="checkbox"/> GDP	1.531,1 USD billion
<input type="checkbox"/> Installed Electricity Capacity	120.926 MW
<input type="checkbox"/> Oil Consumption	1.761,47 bbl/day
<input type="checkbox"/> Oil Production	223.80 bbl/day
<input type="checkbox"/> Gas Consumption	69.03 BCMs
<input type="checkbox"/> Gas Production	13.55 BCMs

Oil and Gas Production and Consumption in SE Europe

COUNTRY	GAS PRODUCTION (bcm/year) [2011]	GAS CONSUMPTION (bcm/year) [2011]	OIL PRODUCTION (thousand b/d) [2011]	OIL CONSUMPTION (thousand b/d) [2011]
ALBANIA	0.05	0.03	15.6	44
BOSNIA & HERZEGOVINA	0	0.2	0	35
BULGARIA	0.2	2.5	2.9	134
CROATIA	2.0	3.0	21.3	113
CYPRUS	0	0	0	65
F.Y.R.O.M.	0	0.1	0	19
GREECE	0	4.4	2.5	343.41
MONTENEGRO	0	0	0	4
ROMANIA	10.0	12.9	105.1	217
SERBIA & KOSOVO	0.5	2.4	19.9	81
TURKEY	0.8	43.5	56.5	706.06
TOTAL	13.55	69.03	223,8	1761,47



SE Europe's Oil & Gas Dependency

- ❑ The average price of oil for the Brent European benchmark for 2011 was \$111.26 bbl while it averaged at \$ 111.67 for 2012 with WTI also averaging very high at \$ 94.05
- ❑ The average OPEC Reference Basket Price for 2011 was \$107.46 p/bbl while for 2012, it stood at \$ 109.45
- ❑ Oil traded above \$110 p/bbl for 1Q 2013 and closed at \$104.66 p/bbl on April 8 at ICE in London for May deliveries
- ❑ The above are considered all time historical high prices. Never before have we witnessed such high oil prices over such a prolonged period
- ❑ According to latest CGES forecasts oil prices are not likely to collapse next year or move to substantially lower levels (in spite of weaker global economic growth), which means that SE European economies will continue to face a high financing burden for oil and gas imports

Brent Crude Oil Spot Prices (2010 – 2011 – 2012)



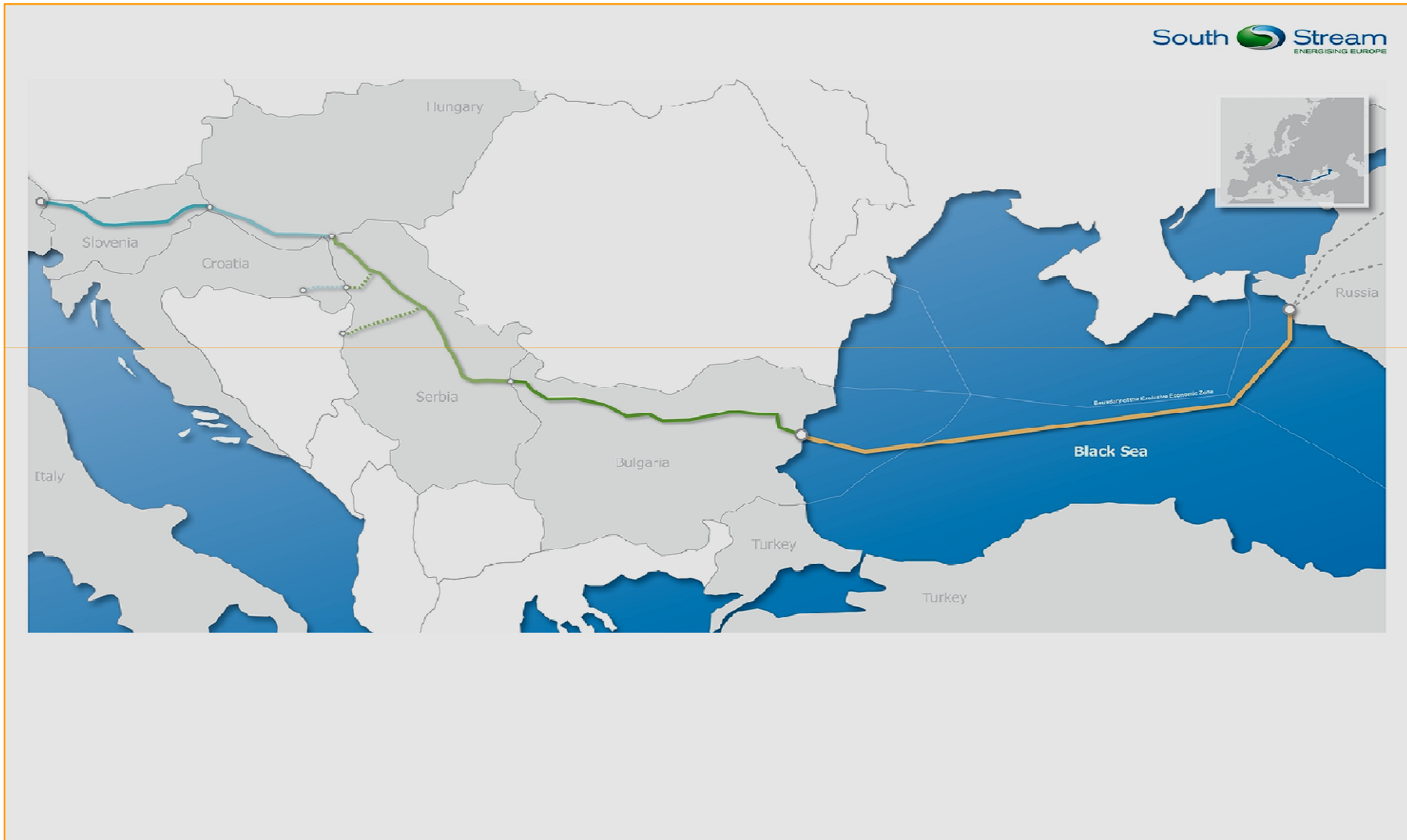
The South Corridor and the changing picture of gas supply in SE Europe



- ❑ The South Stream pipeline, whose construction has already commenced, when completed by 2016 will have a tremendous impact on SE European gas markets
- ❑ The 63 bcma capacity of South Stream will bring tangible benefits to all transit states located along its route
- ❑ A number of fringe benefits will result including price preferences and extra (marginal) gas volumes to be made available at competitive prices to these transit states
- ❑ South Stream will reinforce Russia's status as Europe's key gas supplier
- ❑ The importance of TAP and Nabucco West is by necessary becoming secondary for European gas supply but their role is elevated in regional terms
- ❑ Turkey's role as key transit country is reinforced because of the TANAP pipeline



The South Stream Pipeline



Nabucco West Vs TAP





Gas demand in Bulgaria, Greece, Romania and Turkey

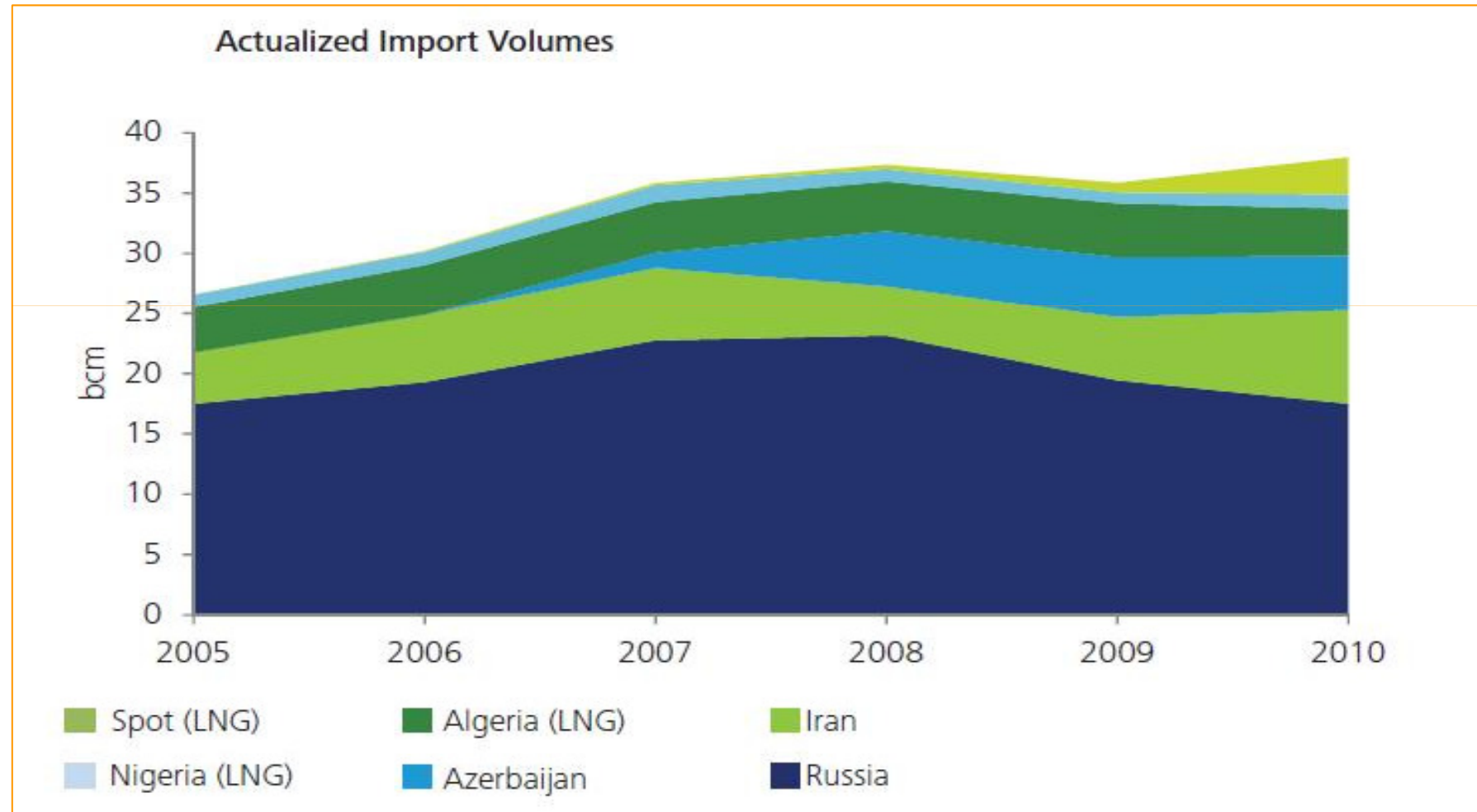
Consumption in BCM/ year			
Country	2004	2011	2020
Bulgaria	2.8	2.9	4.0
Greece	2.7	4.5	8.0
Romania	17.5	13.8	18.0
Turkey	22.1	45.7	70.0

Sources: BP Statistical Review, London 2012

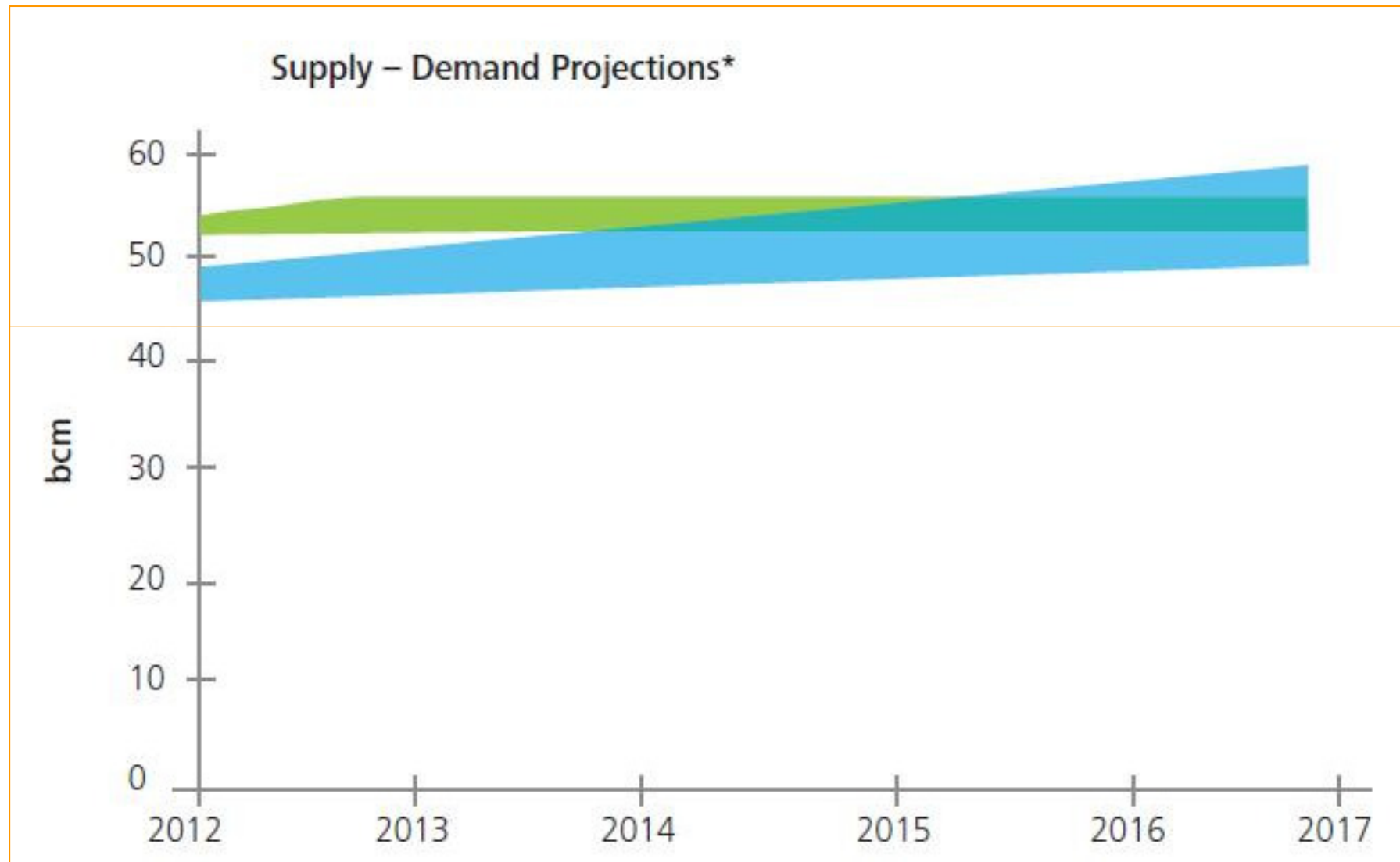
Deloitte, "Turkey's Natural Gas Market Expectations and Developments 2012," April 2012

IENE, "SE Europe Energy Outlook 2011", Athens 2011

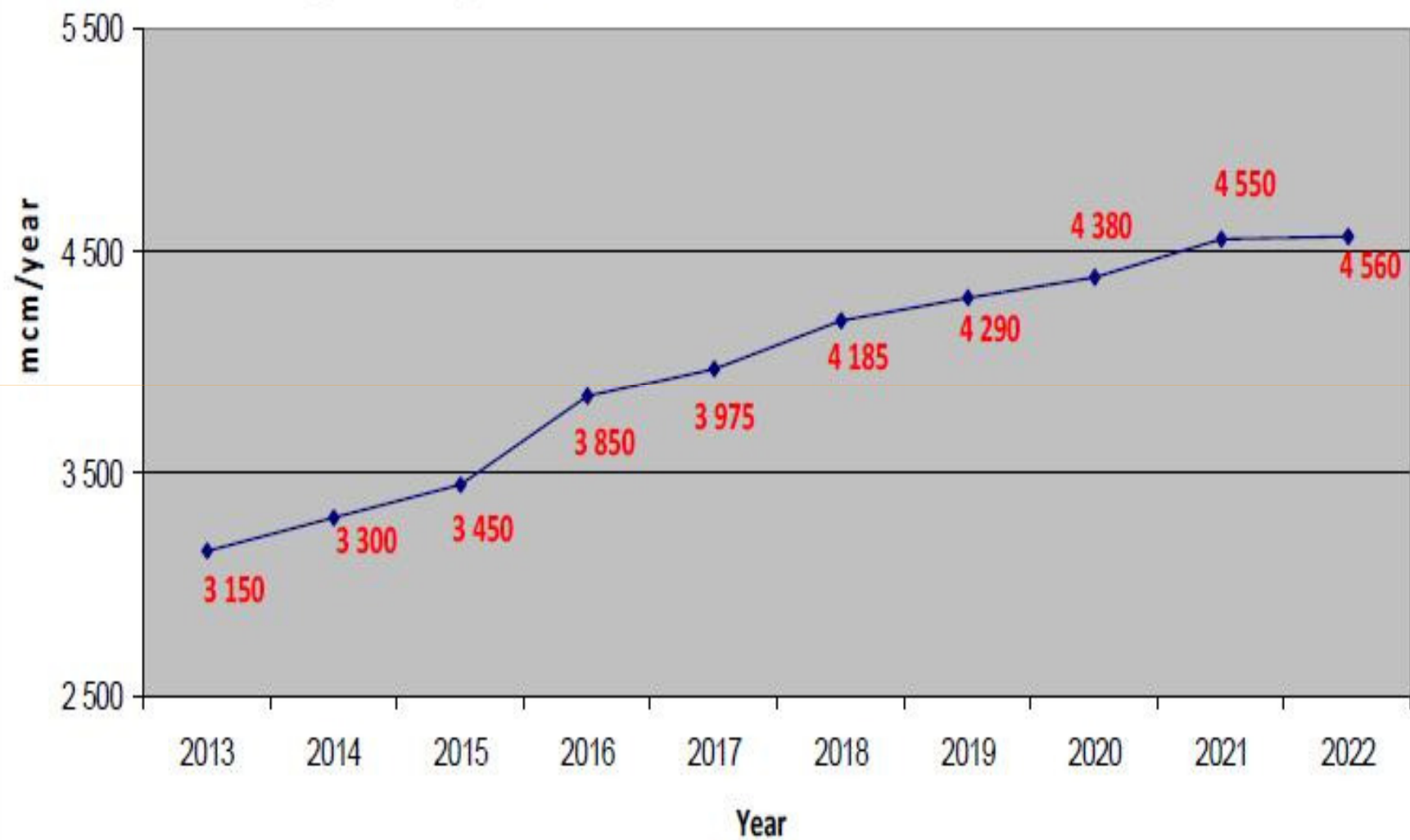
Import Gas Volumes in Turkey



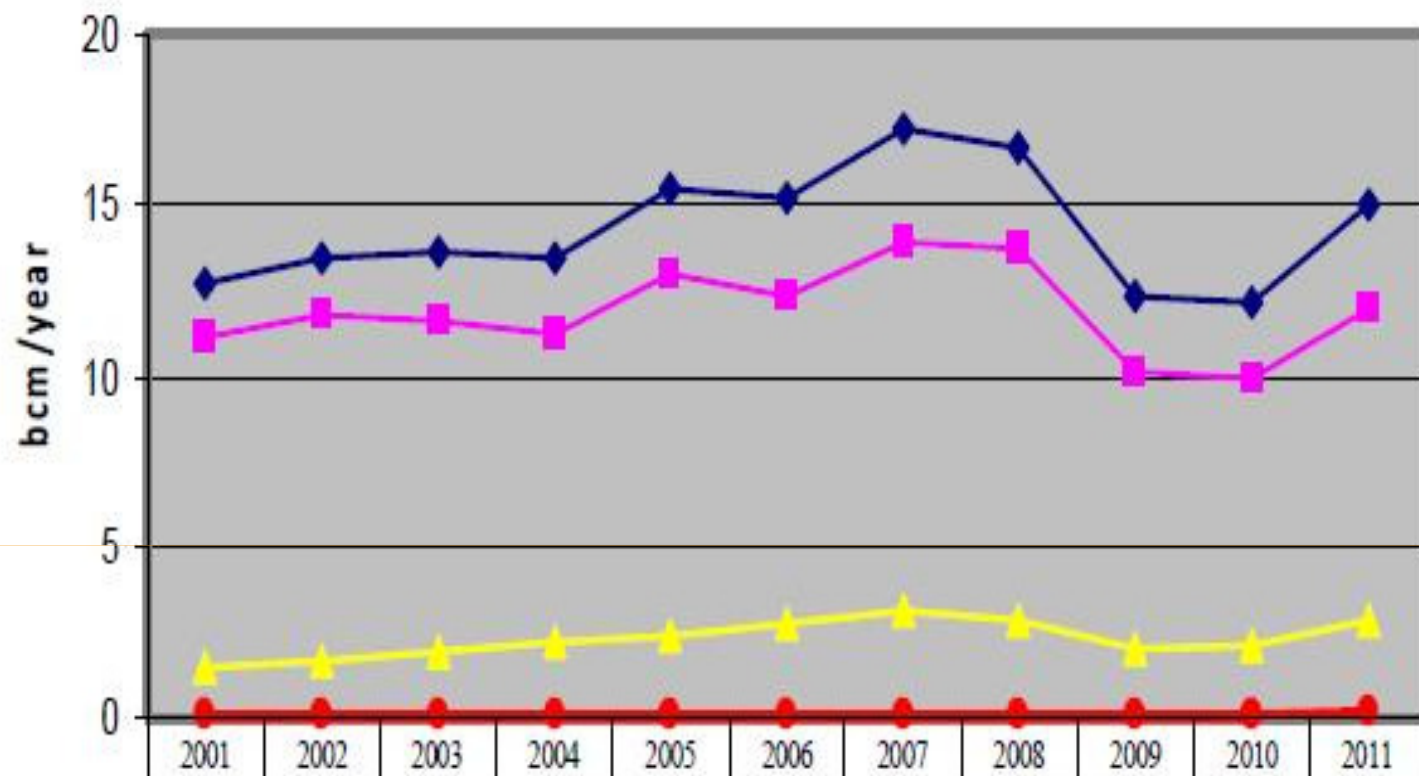
Supply and Demand Projection in Turkey



Bulgartransgaz EAD forecast of the expected natural gas demand in Bulgaria for the period 2013-2022 - basic scenario



Natural gas transit transmission for the period 2001-2011



◆ Total transit transmission	12,7	13,5	13,6	13,5	15,5	15,2	17,19	16,68	12,31	12,16	15,06
■ For Turkey	11,12	11,77	11,57	11,23	12,99	12,37	13,94	13,71	10,17	9,95	12,02
▲ For Greece	1,52	1,65	1,9	2,21	2,42	2,74	3,14	2,85	2,06	2,1	2,9
● For Macedonia	0,09	0,09	0,08	0,07	0,08	0,08	0,11	0,12	0,08	0,12	0,14

◆ Total transit transmission ■ For Turkey ▲ For Greece ● For Macedonia



Existing gas price regime in Europe (a)

- ❑ Although there is considerable price divergence in European gas markets there is growing pressure for EU wholesale gas market integration
- ❑ Wholesale prices on European hubs are converging. The difference between the highest and lowest hub day ahead price dropped from close to 10€/ MWh at the beginning of the year, to less than €1/MWh at the end of 2012
- ❑ Fewer occurrences of adverse flows (gas flowing from a high price area to a relatively lower price area) were observed in the fourth quarter of 2012 across EU hub areas, relative to previous quarters
- ❑ The role of trading hubs as an instrument for trade of natural gas in the EU continues to increase. The volumes physically delivered on EU hubs in the first ten months of 2012 covered 82% of the total demand for natural gas in the countries covered by those hubs, compared to 74% for the full year of 2011.



Existing gas price regime in Europe (b)

- ❑ Market integration is bringing clear benefits to EU gas markets in times of crisis according to EC strategists. During the February 2012 cold snap, EU spot prices proved effective in attracting the flow of gas to where it was needed most and allowing the normal interplay between demand and supply for natural gas to be quickly and efficiently re-established following an unforeseen, exceptional situation. This provided evidence of the benefits of an increasingly flexible, integrated EU gas market.
- ❑ Wholesale gas import prices continue to display high fragmentation. Import prices of piped gas and LNG across the EU vary widely, and prices have continued to increase despite falls in demand. This illustrates a disconnect in EU natural gas markets between market fundamentals and import prices. One major element of price inflexibility continues to be oil indexation: around half of natural gas supply in the EU is still indexed to oil.
- ❑ Recent developments reinforce the view that oil indexation is on the way out. For example, Norwegian gas exporter Statoil has announced that it is actively moving away from oil-indexation in its gas contracts, and has agreed to renegotiate many gas contracts with European utilities in 2012 on that basis. At the same time, Norwegian exports of natural gas to the EU have increased to reach levels close to Russian exports to the EU.

Country	Pricing basis	Estimated average price (€/MWh)	Russian imports/ total gas demand in 2010
Estonia	Long-term contract with Gazprom	33.1	100%
Latvia	Long-term contract with Gazprom	31.7	100%
Lithuania	Long-term contract with Gazprom	38.7	100%
Bulgaria	Long-term contract with Gazprom	42.0	99%
Germany	Long-term contract with Gazprom	27.7	38%
Germany	Long-term contract with Norway	29.3	-
Germany	Traded hub	24.3	-
Netherlands	Traded hub	23.9	8%
UK	Traded hub	24.3	-

Wholesale gas prices for selected countries, first quarter, 2012

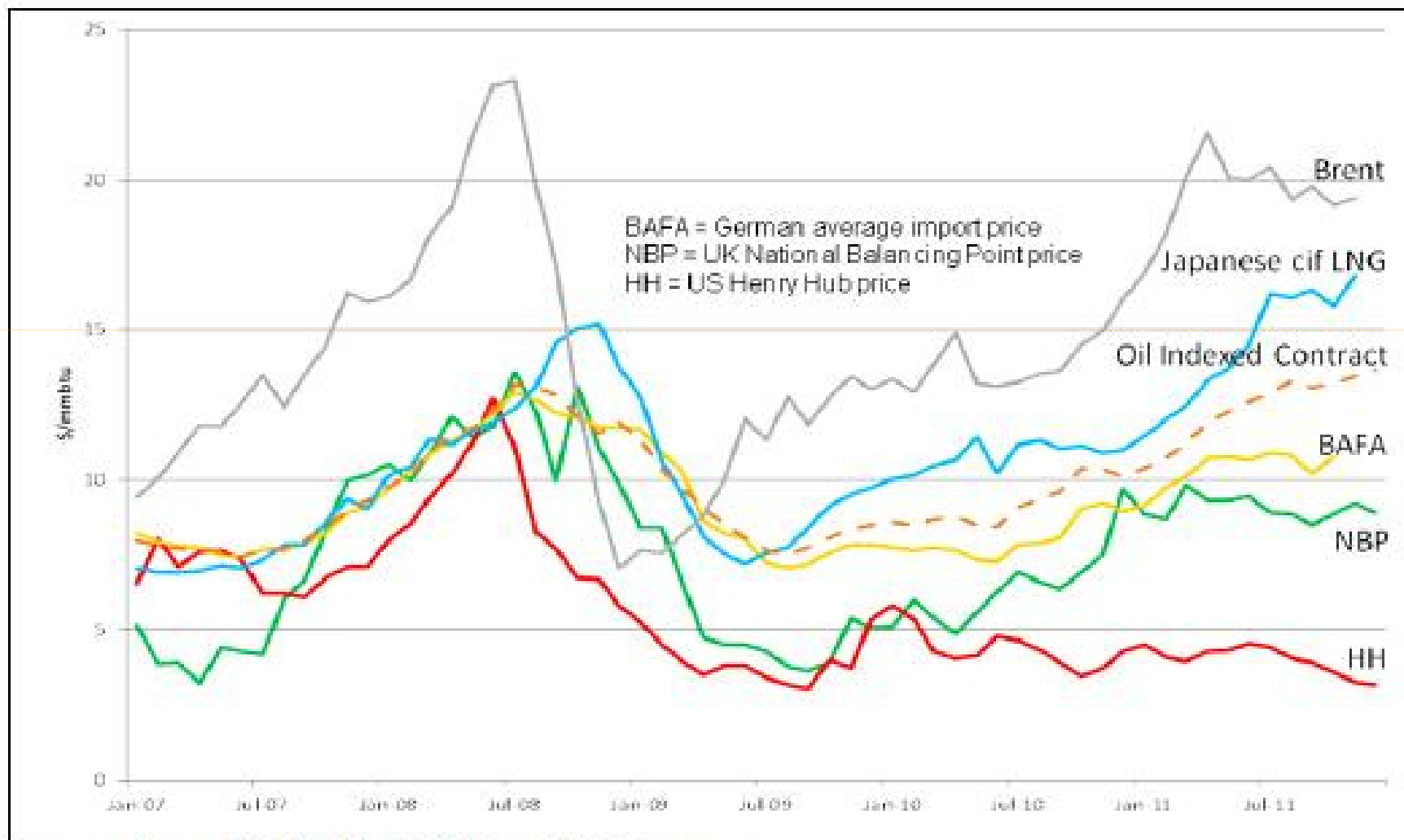
Sources: EU Market Observatory, BP, CRS

Average gas prices for 2012 in selected countries based on long-term contracts (\$/mbtu)

Border prices for Russian pipeline gas imports		LNG Imports	
Bulgaria	15,9	France	11,5
Greece	13,5	Greece	13,3 ¹
Hungary	11,7	Italy	12,0
Italy	13,2		
Romania	12,4		

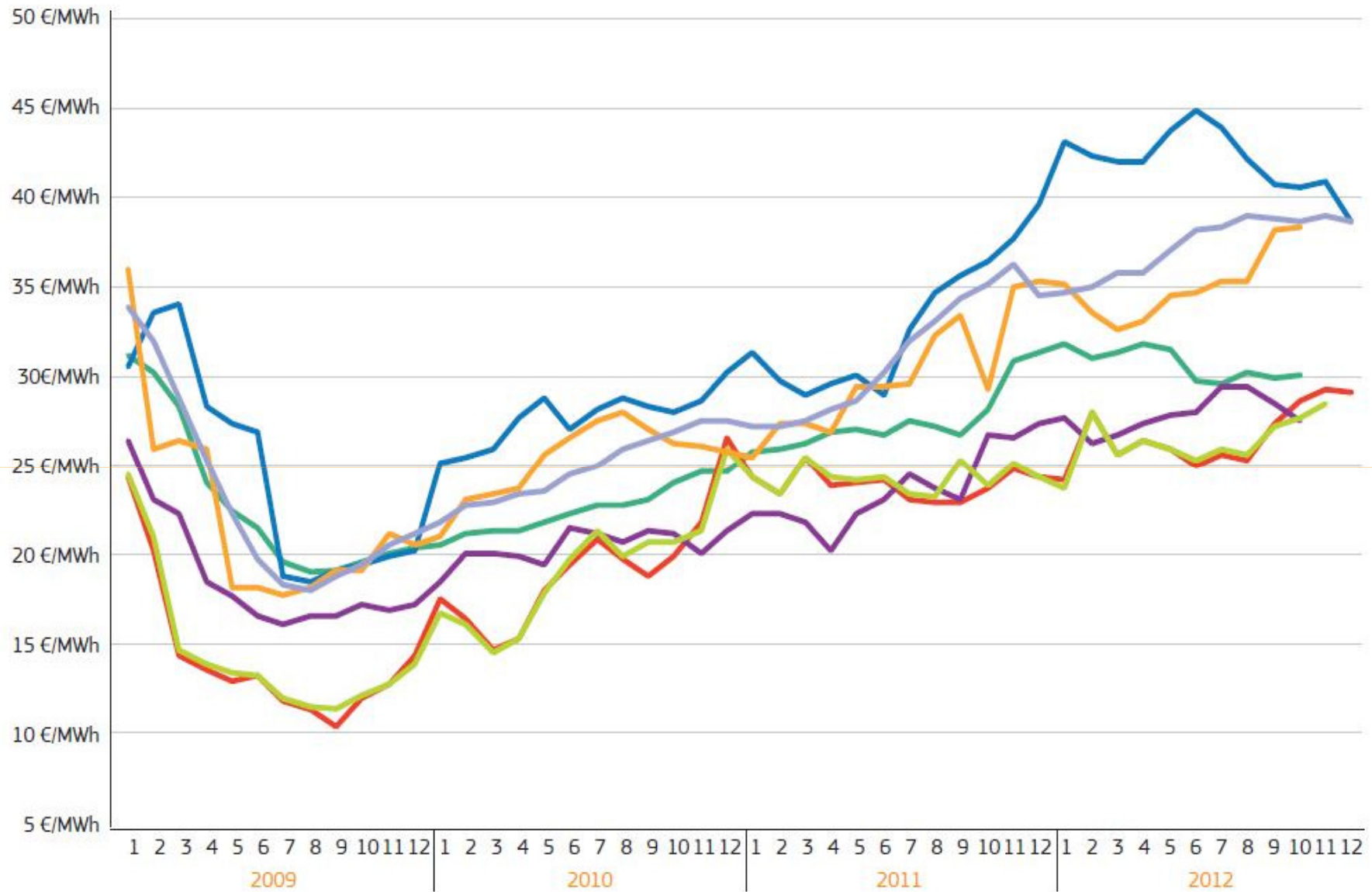
^[1]Before price revision by Sonatrach

Global gas and Brent prices: January 2007-December 2011



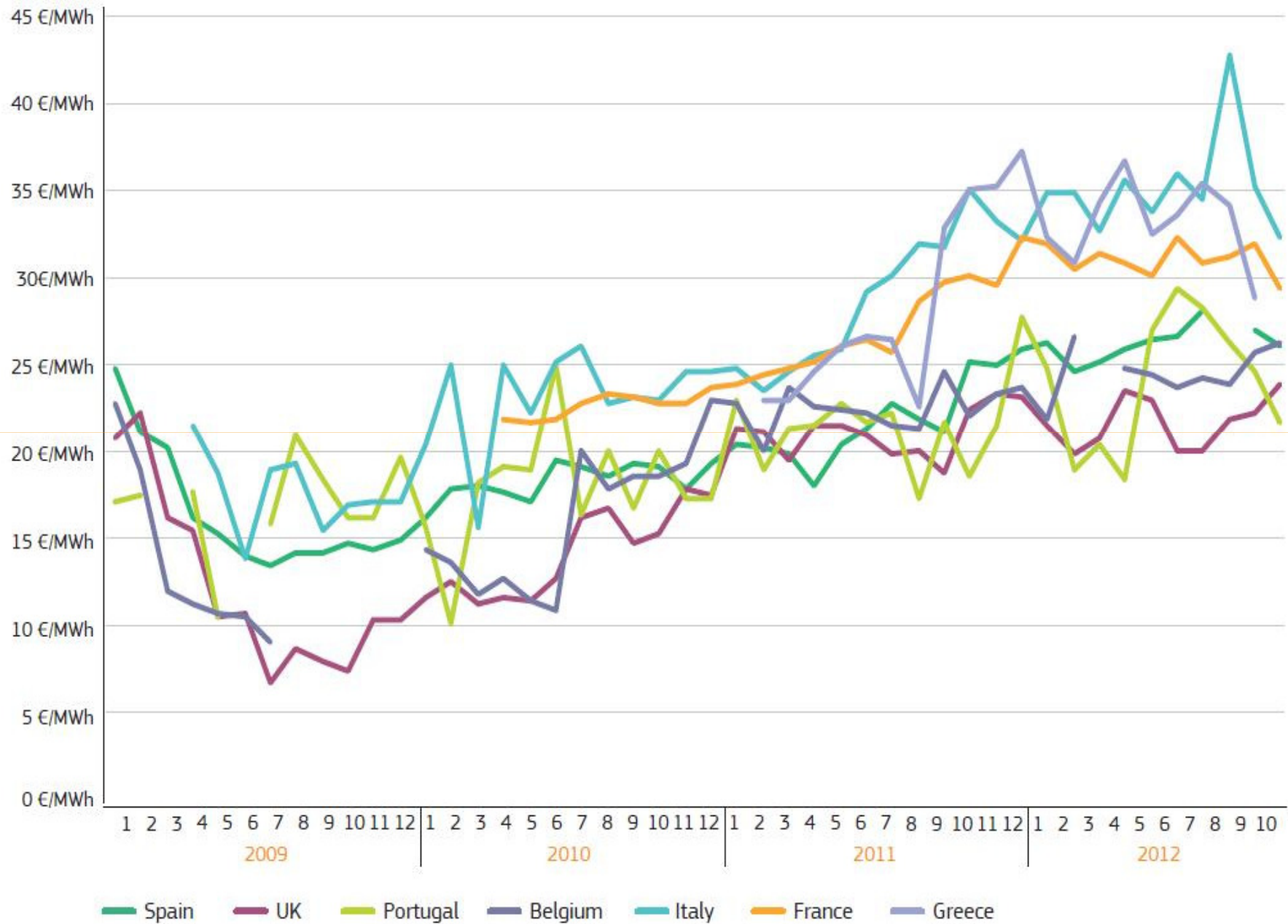
Sources: Argus, BAFA, EIA, ICIS Heren, H.V. Rogers

COMPARISON OF EU WHOLESALE GAS PRICES

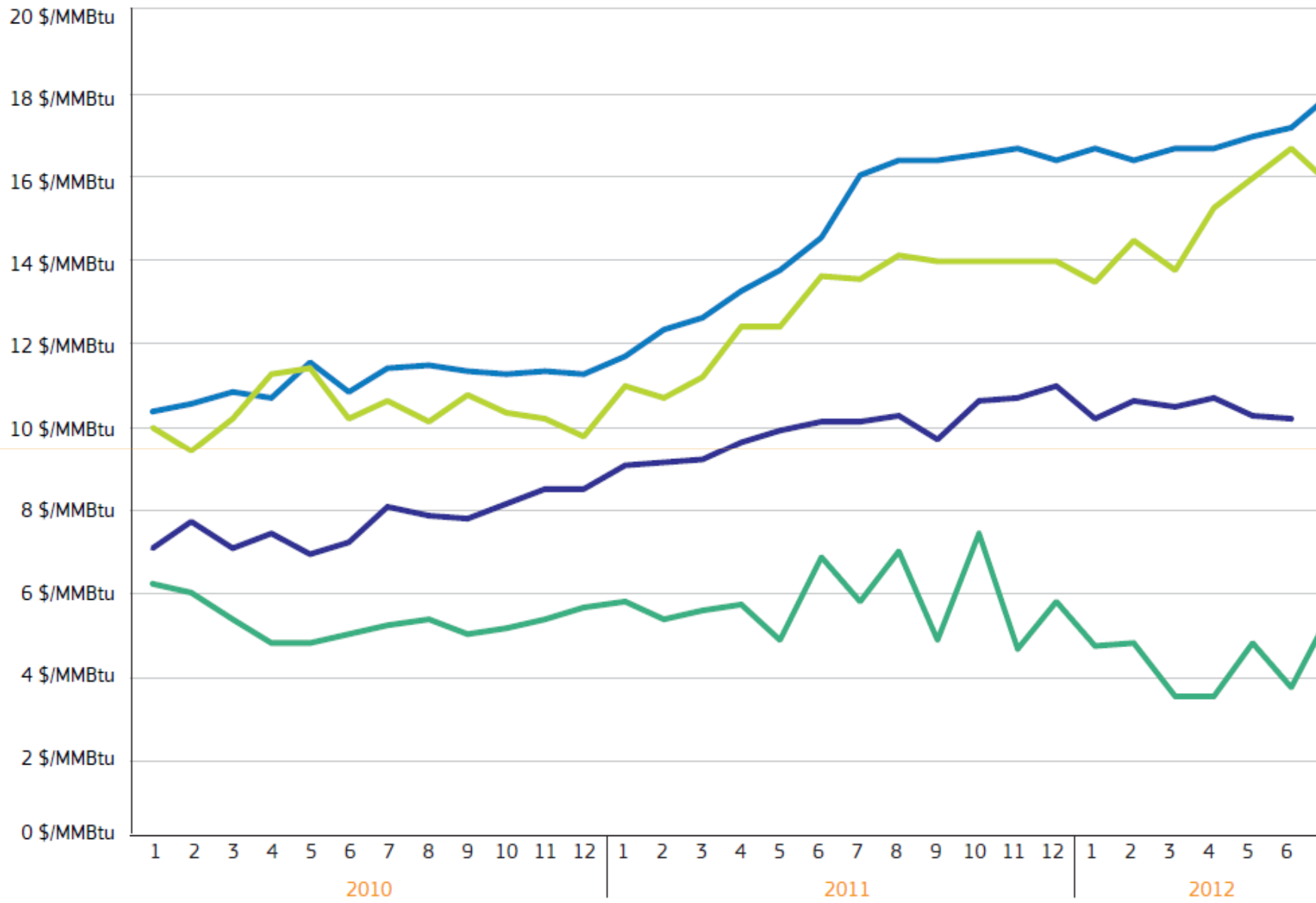


- Average German border price
- UK NBP hub day-ahead price
- Norwegian gas to Belgium
- Platts NWE Gas Contract Indicator M/A
- Russian gas to Bulgaria
- Spain LNG price
- Algerian gas to Italy

LNG GAS PRICES IN EU MEMBER STATES

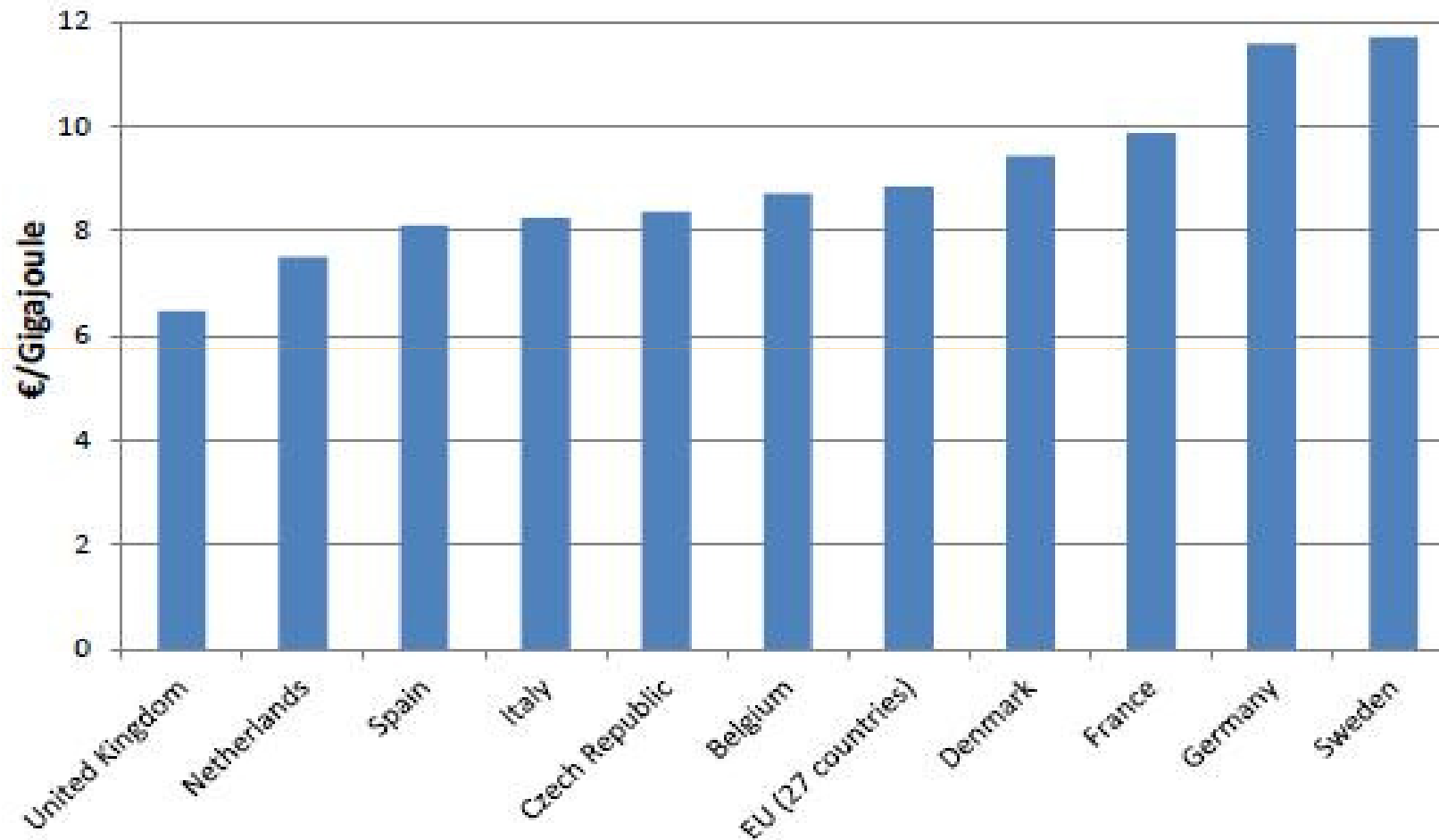


LNG PRICES IN EU, US, JAPAN AND KOREA



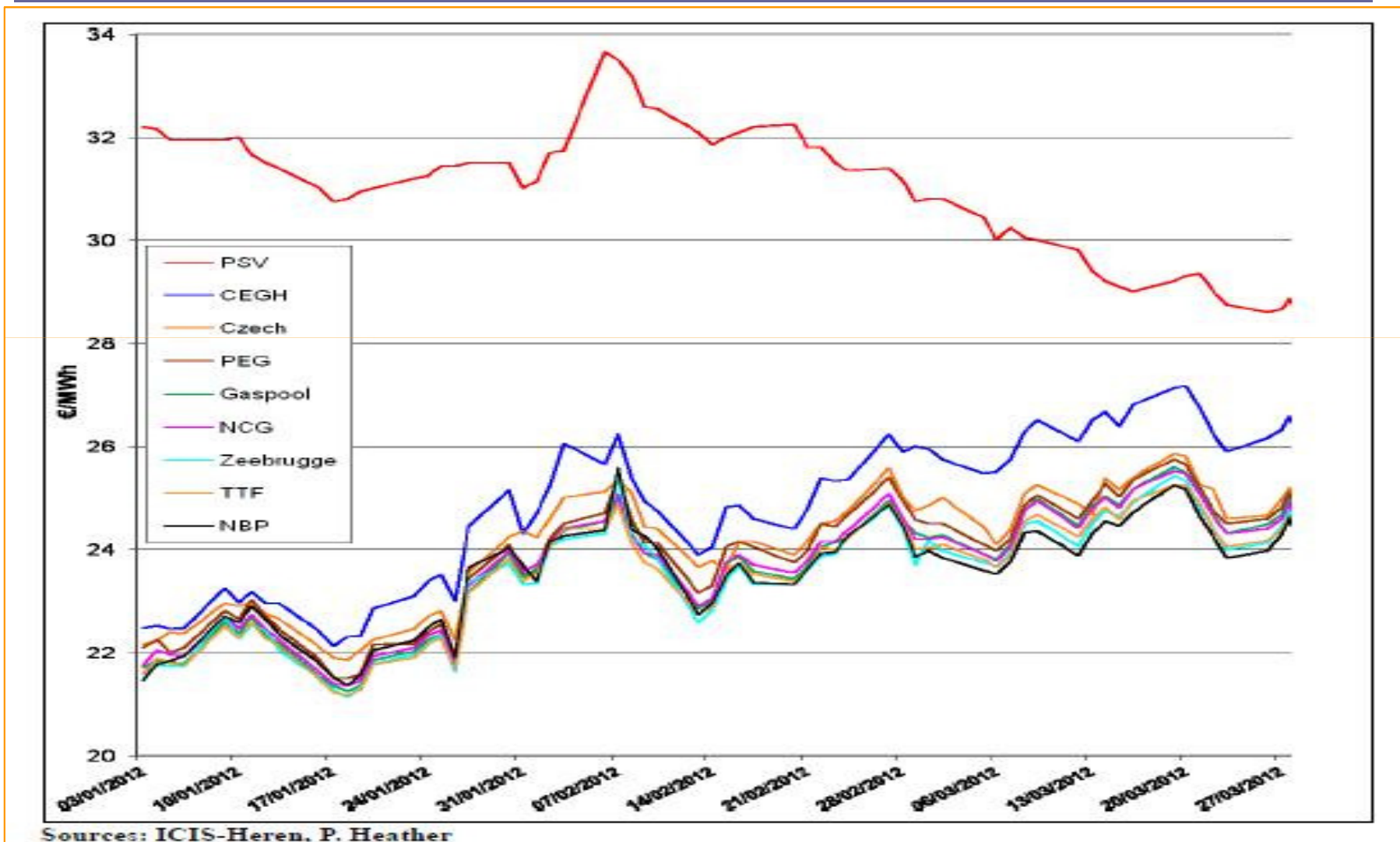
■ EU average ■ Japan ■ Korea ■ US

Gas prices for industrial consumers (2011)



Source: Eurostat

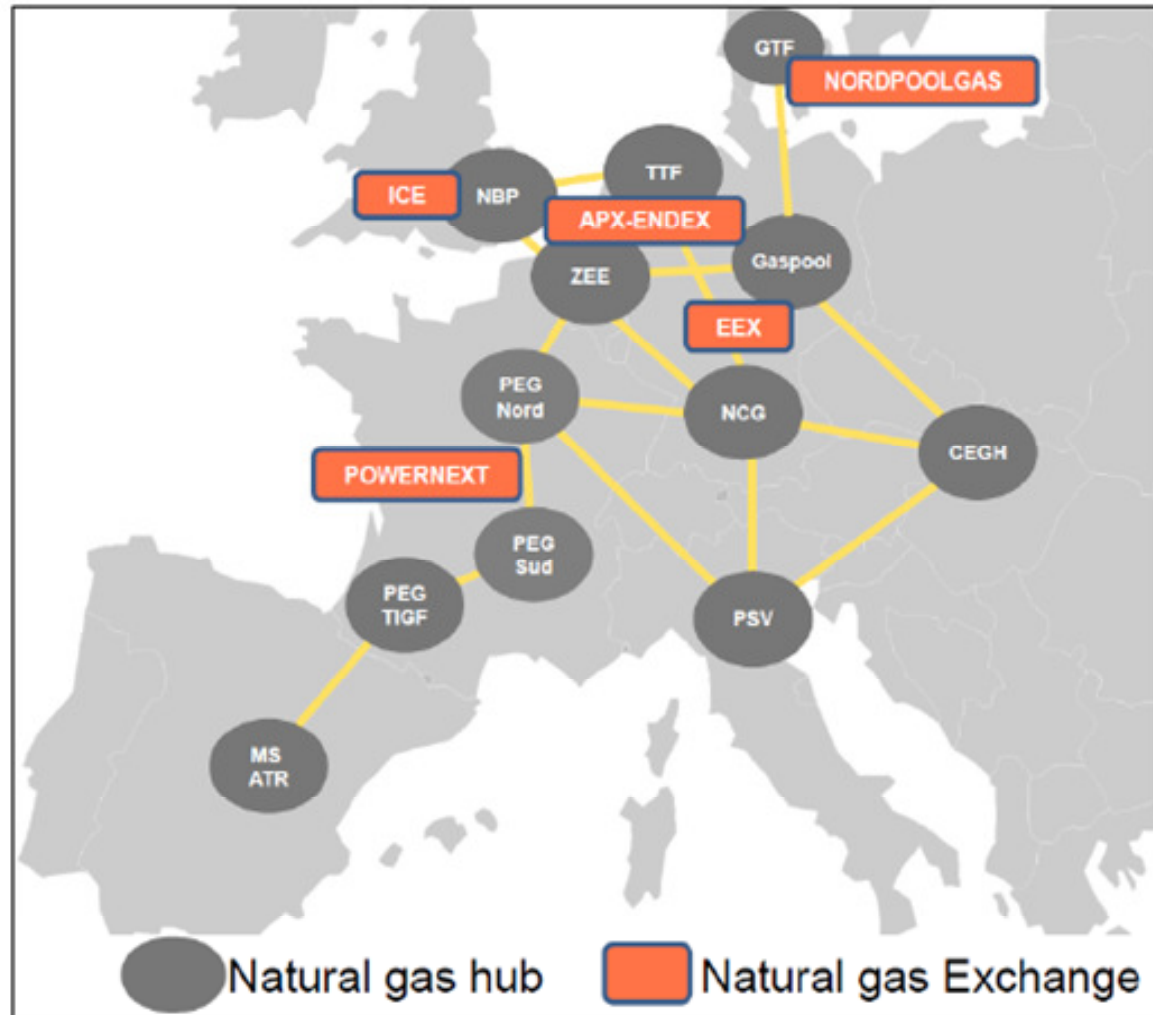
European Month Ahead prices: Q1-2012



Some observations on Gas Hubs

- ❑ Today, European gas hubs offer a market price mechanism for gas trading in North Western Europe. In addition these gas hubs, contribute to credible price creation, discovery and act too as reference points
- ❑ We have three broad categories of gas hubs: trading hubs, transit hubs and transition hubs
- ❑ The role of the exchange is very important in the development of hubs and the promotion of gas trading
- ❑ There is a future for gas hubs in a market price environment as they provide a useful service for balancing but also in the trading of marginal gas volumes

Natural gas hubs and gas exchanges in Europe



Source: The Oxford Institute for Energy Studies, 2012

The development of continental European gas hubs



- ❑ In 2002 only two gas hubs were in operation: Britain's NBP (since 1996) and Belgium's Zeebrugge (since 2000)
- ❑ In 2003 the Dutch TTF and Italy's PSV were added
- ❑ In 2004 the French PEG
- ❑ In 2005 the Austrian CEGH
- ❑ In 2006 the German EGT
- ❑ In 2009 the German Gaspool and LGG

- ❑ Current hub landscape was complete by 2009 and showed signs of accelerated developments in terms of traded volumes, especially in the winter of 2011 - 2012

Continental European Natural gas Hubs

Hub	Type	Country	First year of operation
National Balancing Point (NBP)	Trading Hub	Great Britain	1996
Title Transfer Facility (TTF)	Trading Hub	Holland	2003
Zeebrugge hub (ZEE)	Transit Hub	Belgium	2000
Central European Gas Hub (CEGH)	Transit Hub	Austria	2005
Gaspool Balancing Services Hub (GPL)	Transition Hub	Germany	2009
NetConnect Germany (NCG)	Transition Hub	Germany	2009
Point d' Echange de Gaz (PEGs)	Transition Hub	France	2004
Punto di Scambio Virtuale (PSV)	Transition Hub	Italy	2003



Three categories of Gas Hubs

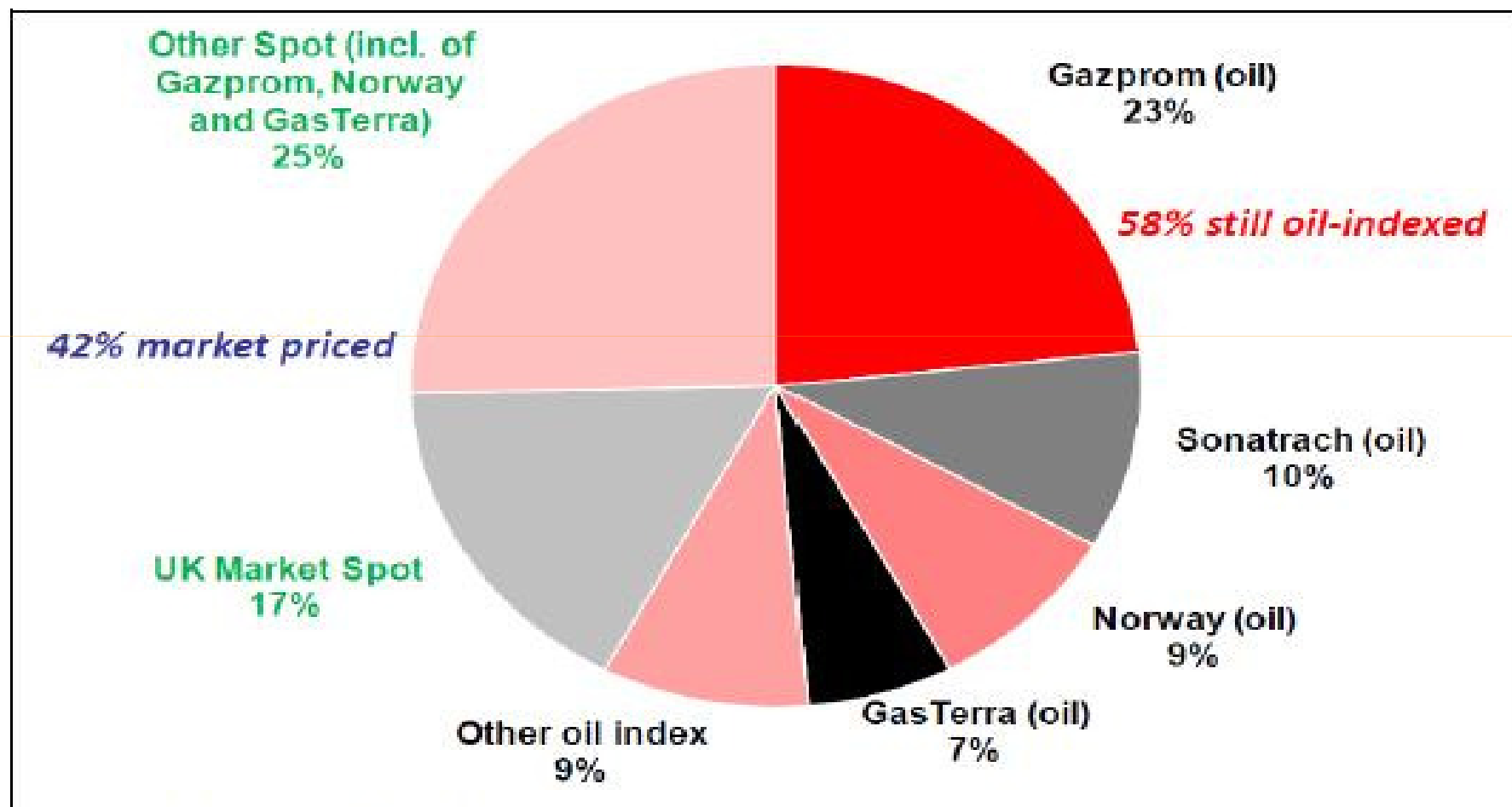
- ❑ **Trading Hubs** based on virtual trading points, have open and easy access to trade to a wide number and variety of participants, have good transparency and reporting and have proven to be reliable markets. They have reached a certain level of maturity and are already being used for the financial risk management of gas portfolios.
- ❑ **Transit Hubs** are actual transit locations, or physical points, at which market participants can choose to trade gas; however, their primary role is to facilitate the transit of large quantities of gas for onward transportation
- ❑ **Transition Hubs** are based on a virtual trading point but have not yet reached a mature level. They are for the most part (but not all) attracting more volumes year on year and are showing signs of progress towards becoming a 'marker price' for their respective national markets. Indeed, they are being used as 'balancing markets' for shippers delivering or taking gas in those grids
- ❑ The role of exchanges is crucial as they provide a regulated and anonymous market place and hence they contribute to the growth of hubs (i.g. ICE, APX-Endex, Powernext, EEX)

Gas hubs were made possible following a change in attitude towards trading



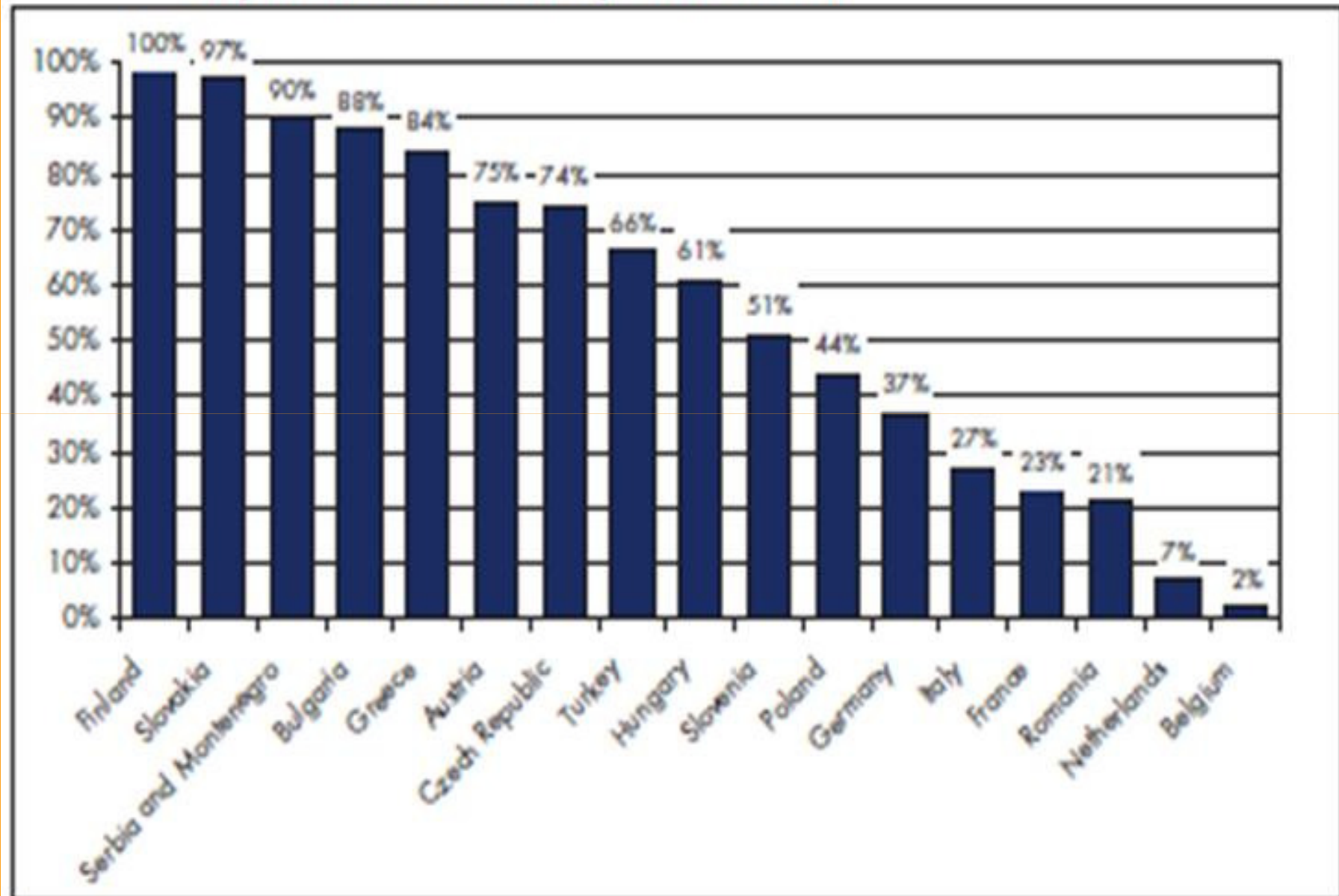
- ❑ “The development of the gas hubs in Continental Europe has been the result of a change in attitude towards trading”, says the Oxford Institute of Energy Studies.
- ❑ The EU has shown a keen interest in the liberalization of the European energy markets for many years but their efforts have been redoubled recently and there is now a tight framework in place to ensure that the goals are achieved. However, legislation alone cannot effectively deliver the changes required to create a successful free and open traded market environment.
- ❑ It is essential that the participants of the market in question are willing to see change and that they actually embrace it; it is apparent that since 2010 there have been changes in attitudes to gas trading both by sellers and, especially, by buyers.
- ❑ A final contributor to the changing gas market in Continental Europe has been the push by the exchanges to open up the markets by offering new products on ‘easy to trade’ electronic platforms

Estimated split of European gas supply in 2011



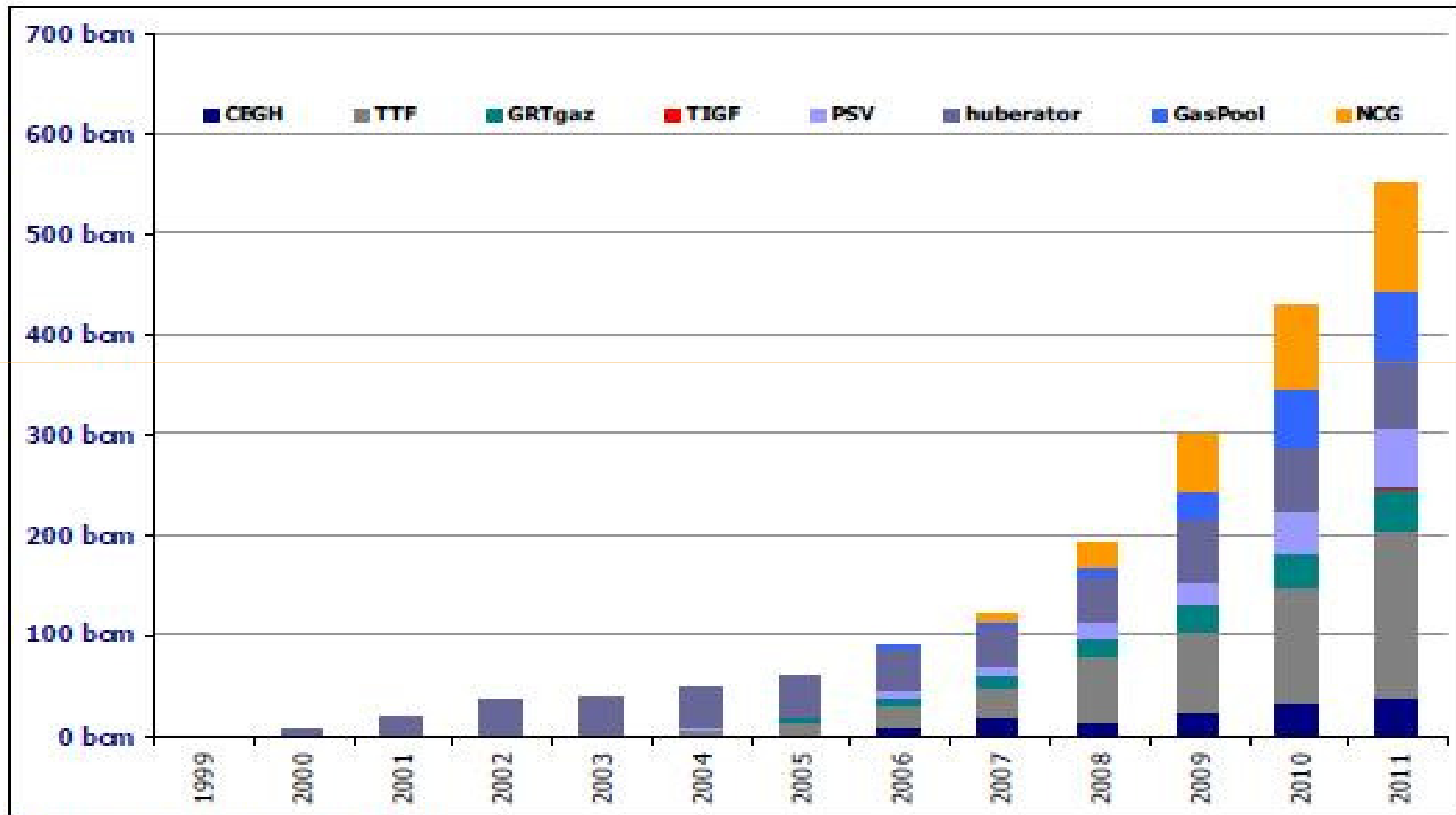
Source: SG Cross Asset Research

Gazprom's Shares in the European Gas Markets



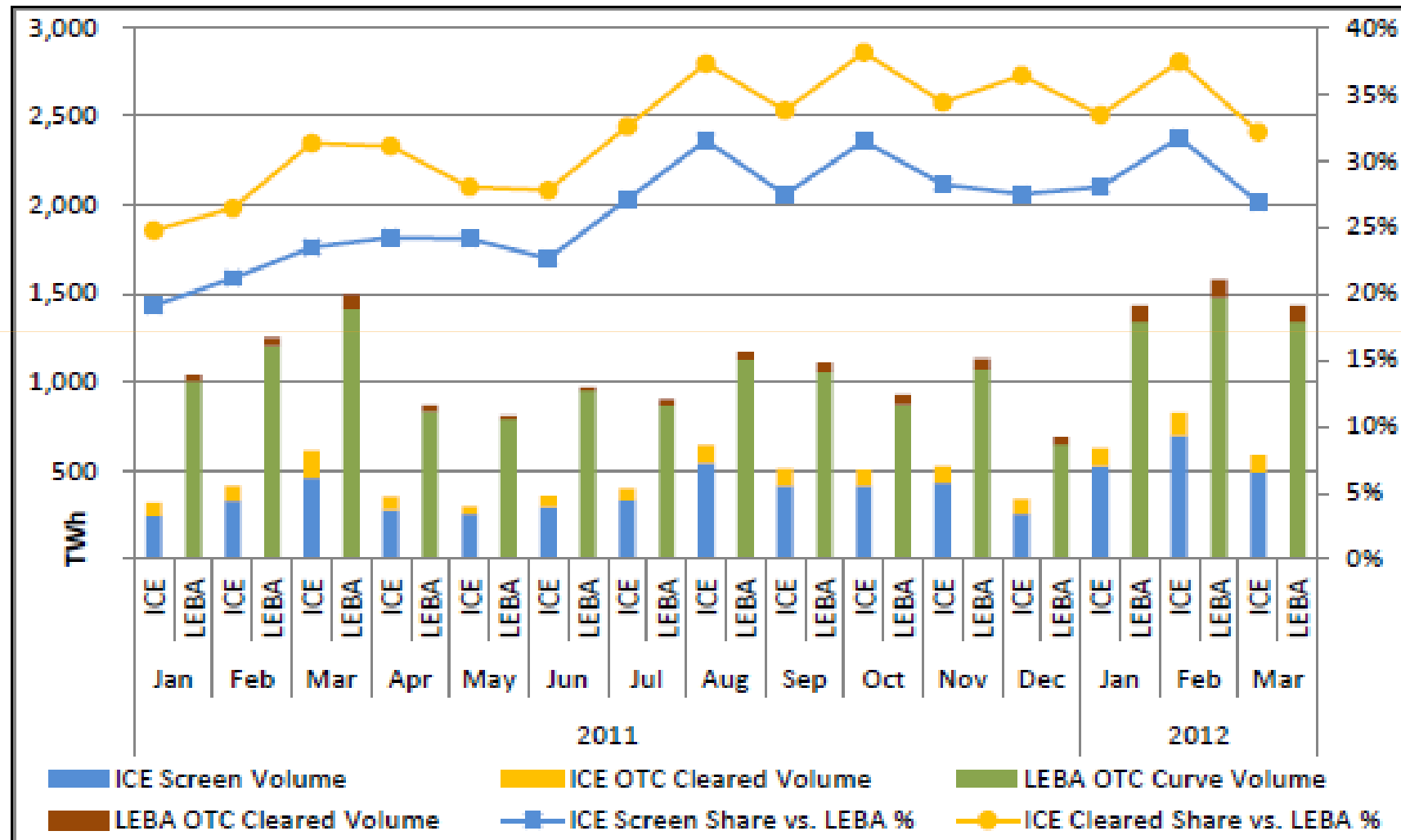
Source: Gazprom

Continental European Hubs OTC volumes: 2000-2011



Sources: CEGH from TSO data

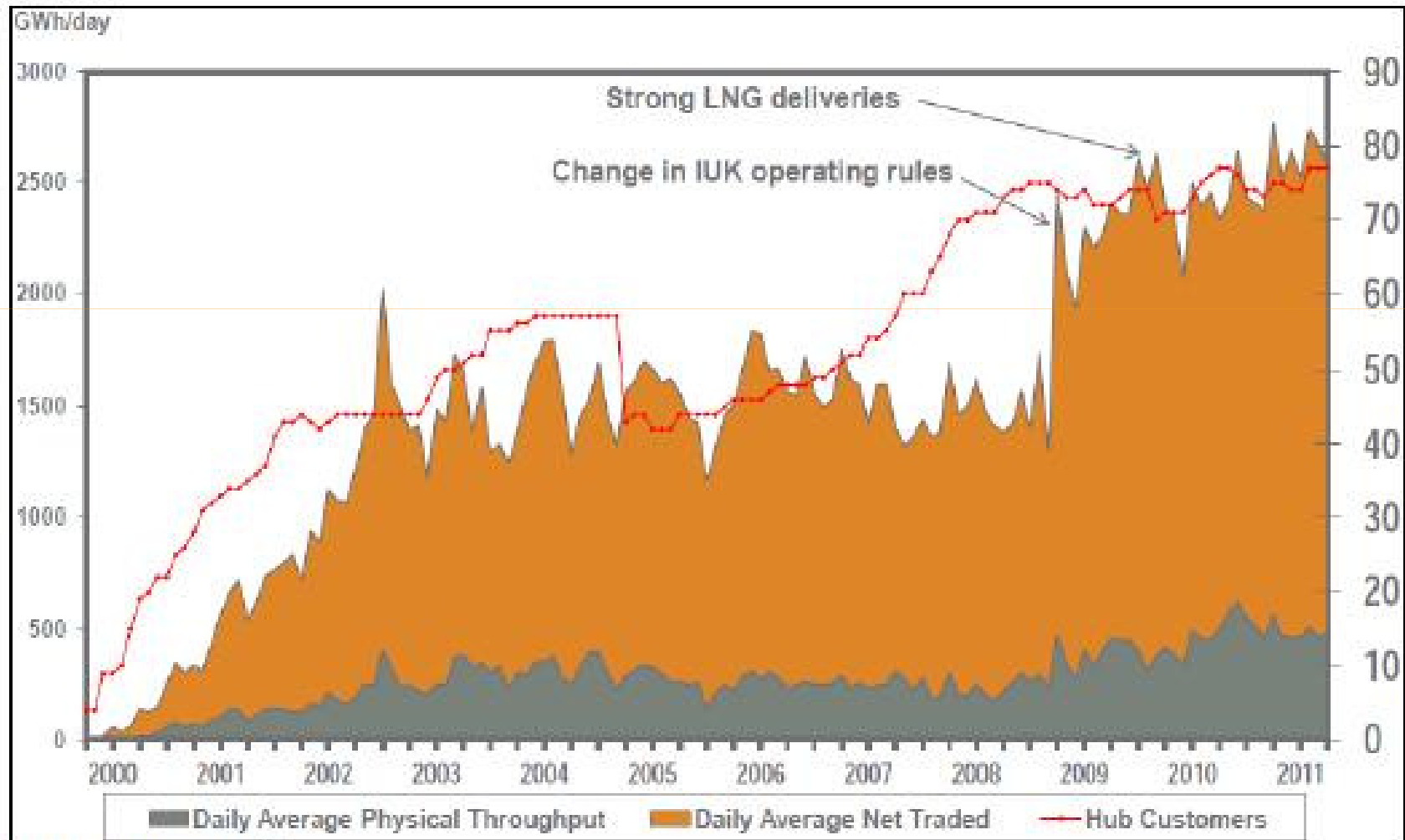
ICE share of the NBP market



Source: Intercontinental Exchange

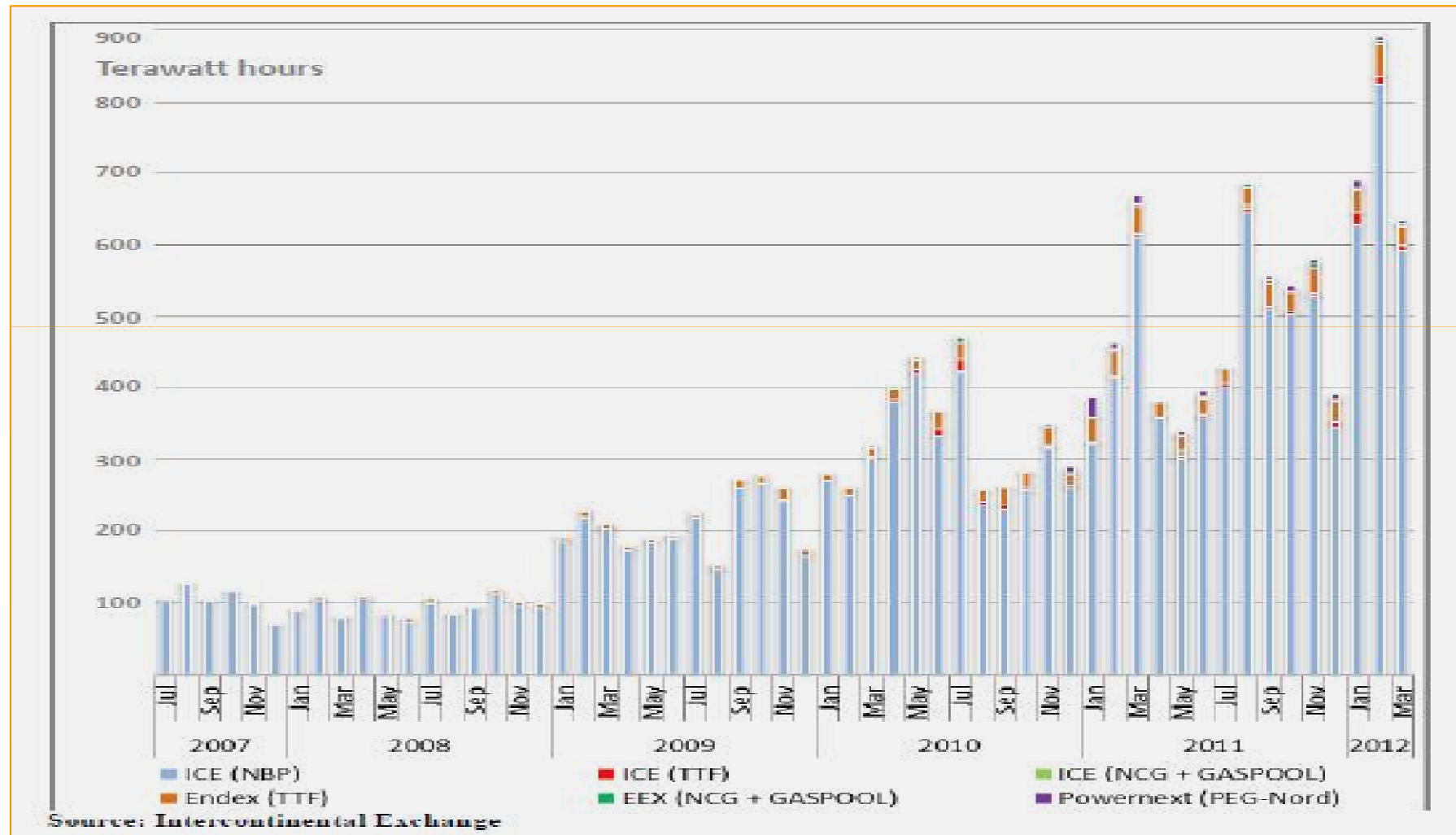
Note: LEBA: London Energy Brokers' Association; see glossary for more detail

Zeebrugge traded volumes, physical throughput and Members:2000-2011



Source: Huberator²⁴

Exchange traded European natural gas volumes:2008-2011





Legislation and Regulation (a)

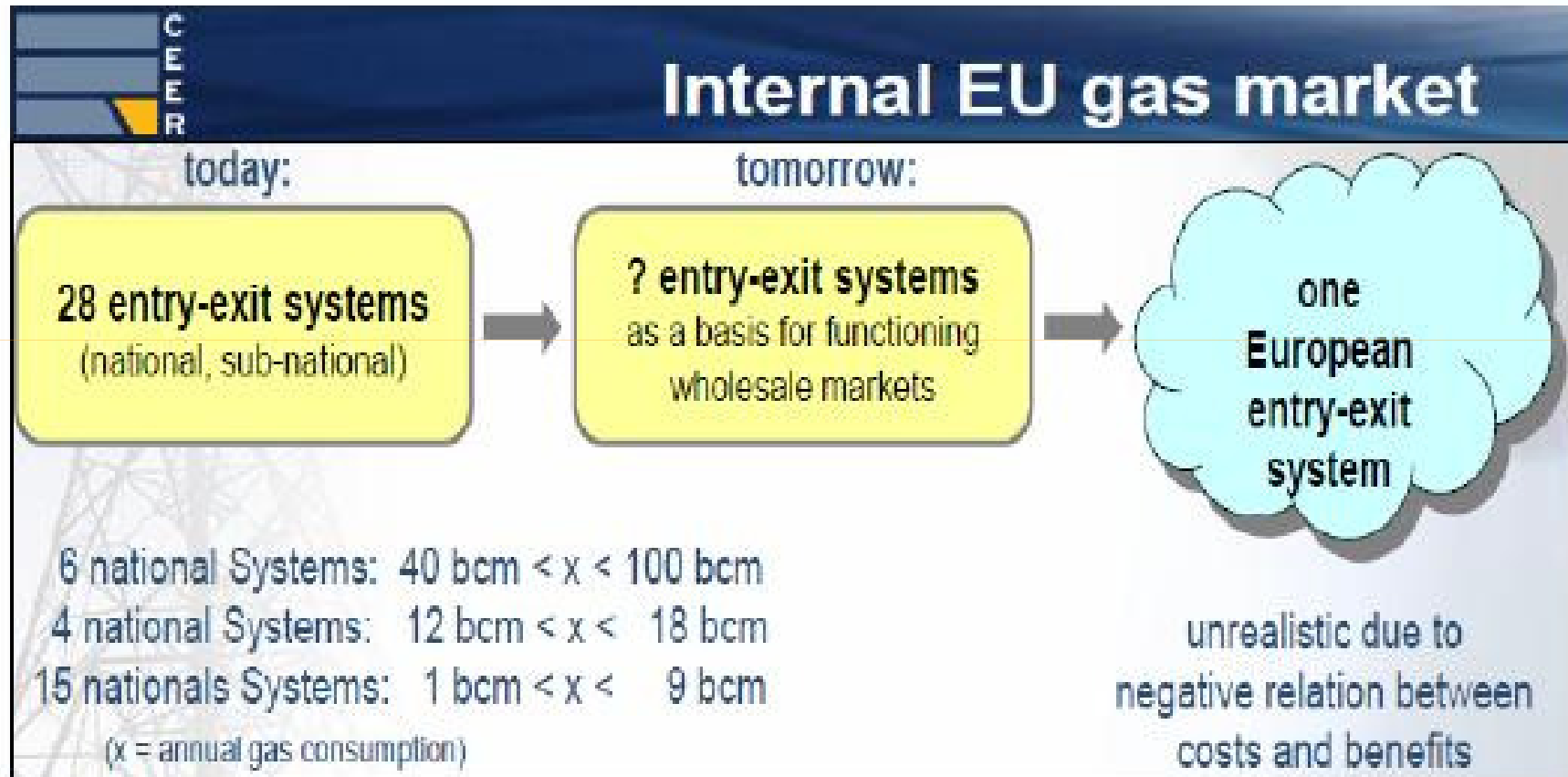
- ❑ There are several political and regulatory efforts now in place to help deliver efficient and competitive energy markets within Europe
- ❑ The political driver behind all these efforts is the goal to transform the European gas market, by integrating the various national markets, into a single liberalized market. The legislation to achieve that goal was set out in the so-called '3rd Package' Directive of 13th July 2009. This package provides for legally binding network codes in order to create a single gas market
- ❑ Since July 2009 progress has been fairly swift considering the task involved and the implications that this radical change will have. The Madrid Forum initiated a process in September 2010 to establish the GTM and to explore the interaction and interdependence of all Network Codes; the European Commission set out its timetable for market reform in February 2011, setting a target of 2014 by when the EU will have a fully functioning, interconnected and integrated internal energy market. Allowing gas and electricity to flow freely. On 23rd March 2012, the Madrid Forum endorsed the Gas Target Model of the Council of European Energy Regulators



Legislation and Regulation (b)

- There is still a long way to go, in defining the rules and regulations that will permit such a unified market, in ironing out capacity bottlenecks to allow a market mechanism to work properly
- Although considerable progress has been made in SE Europe by the 'Energy Community' towards a unified gas market this will not materialise by next year. Such a market will be able to function once all planned interconnectors have been constructed and are in operation

European Gas Target Model vision: towards a single EU gas market



Source: CEER

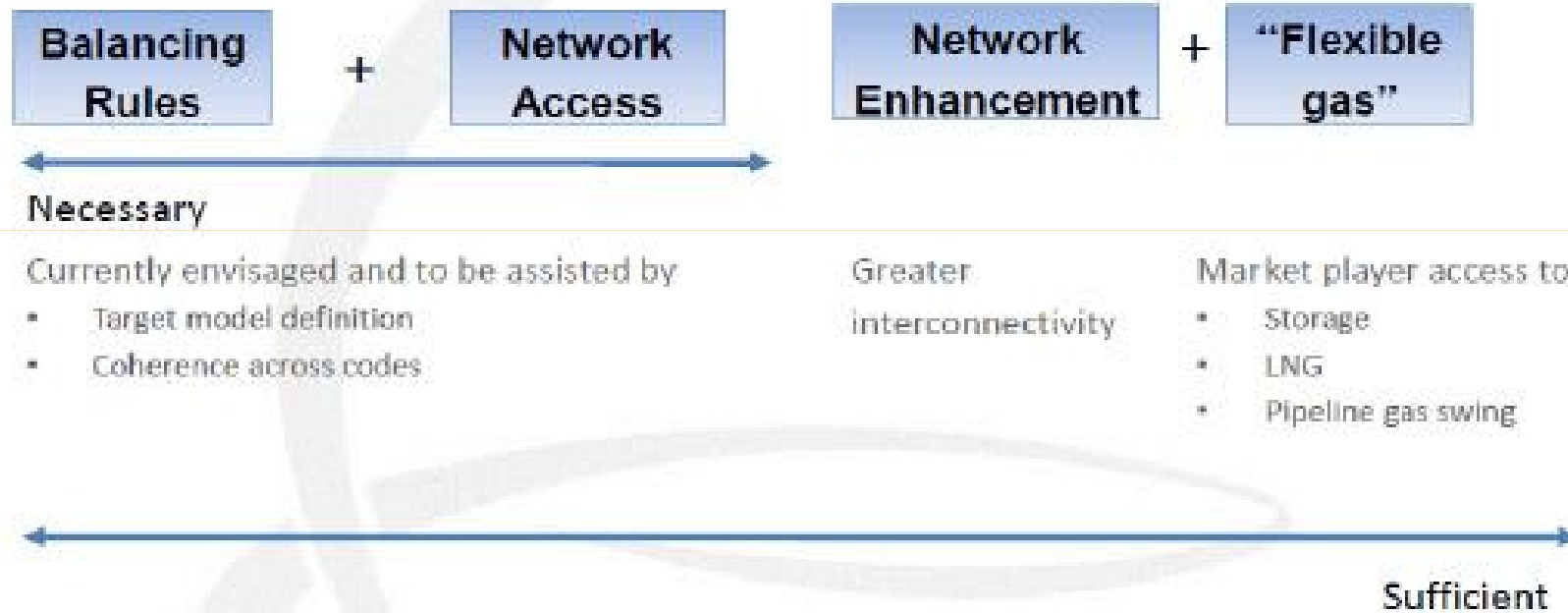


Trading and Exchanges

- ❑ The effects of the changes in attitude can readily be seen throughout Europe in the ever-growing volumes of gas being traded at the hubs, both in the OTC markets and on the exchange
- ❑ The European gas markets have continued to develop and the situation across Europe is actually quite different in Q1-2012 to that of just a year ago
- ❑ Traded volumes have grown overall and in almost all markets and the exchanges are helping to create new business
- ❑ From a purely traded volume perspective, the Continental European markets are virtually unrecognizable from just 5-6 years ago.
- ❑ Since Zeebrugge started in 2000, total traded OTC volumes have gone from less than 5bcm in that first year, to over 55bcm in 2005, to over 425 bcm in 2010 and last year, the total OTC volume across Continental Europe reached about 550bcm
- ❑ There is a substantial amount of trading being done on the TTF market which does not result in physical nominations and therefore it can be assumed that it is being done solely for risk management purposes
- ❑ Whichever sources are taken, this recent growth is really impressive and shows that attitudes have changed towards an acceptance of traded markets

ENTSOG's 'conditions' for a successful single European gas market

Essential conditions for hub & market functioning



Source: ENTSOG



Why a gas hub for SE Europe (a)

- ❑ Anticipated gas demand growth in all four countries of SE Europe – Romania, Bulgaria, Turkey, Greece – will ensure that higher gas volumes will be there by 2016/ 2020
- ❑ EU's Gas Target Model will be fully implemented by 2016 which means that cross border gas trading will be much facilitated
- ❑ Cross border gas trading to be facilitated also by the emergence of several interconnectors in the region
- ❑ In view of increased gas volumes and the anticipated entry of new gas suppliers there will be a need for a regional mechanism (read hub) to help parties manage their gas portfolios and optimize them both physically and financially



Why a gas hub for SE Europe (b)

- ❑ A regional gas hub will help increase the volumes traded and provide too a sound risk managements tool
- ❑ A regional gas hub in SE Europe will help further in the transformation of European gas market, whose demand is likely to reach some 600 bcma by 2020
- ❑ At the end of the present decade European gas market demand will be met by many different sources of supply and with the ability to move gas around relatively easily from region to region
- ❑ SE Europe, placed between East (i.e. Russia, Caspia region)and West (North America) and South (LNG supplies from MENA) will be able to participate via increased pipeline flows and flexible LNG flows through an organized gas hub

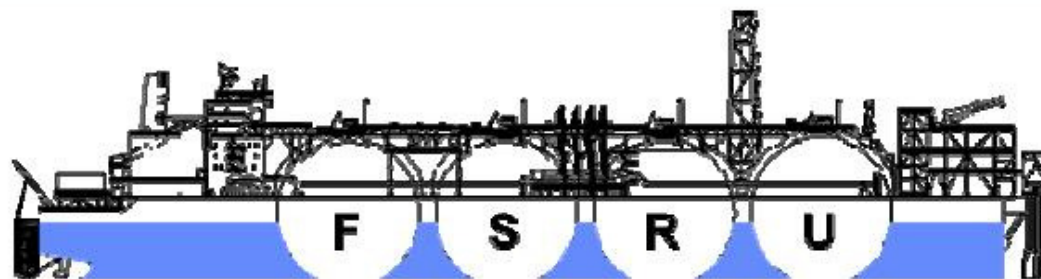


Substantial new gas transit capacity in SE Europe will become available over next 3-4 years

- ❑ Bulgaria – South Stream to become operational in 2016 and to supply Bulgaria with additional gas quantities for onward transit (Greece, FYROM, Albania)
- ❑ Bulgaria – Greece – Bulgaria Interconnector (IGB) with a transit capacity of 5.0 BCM
- ❑ Bulgaria – Romania Interconnector (IBR), with transit capacity of 1.5 bcm
- ❑ Bulgaria – Serbia Interconnector (IBS), with transit capacity of 1.8 bcm
- ❑ Turkey – Bulgaria Interconnector (ITB), with transit capacity of 3 – 5 bcm
- ❑ Turkey – The TANAP cross country pipeline will enhance Turkey's gas transit role delivering substantial new gas quantities at the Greek/Turkish and Bulgarian/Turkish borders

ALEXANDROUPOLIS LNG INGS - A NEW ENERGY GATEWAY TO EUROPE





The Aegean LNG / IGB System



The Aegean LNG project will be located in Northern Greece

In conjunction with IGB provides opportunity to reach the growing SE European energy market offering possibilities for diversification of natural gas sources and further penetration of LNG in the area.



The Greece-Bulgaria Interconnector (IGB)

IGB acts as a gateway to SEE through Greece, creating synergies with smaller interconnectors in the region (eg. BG-RO), allowing access to the evolving SEE energy market .

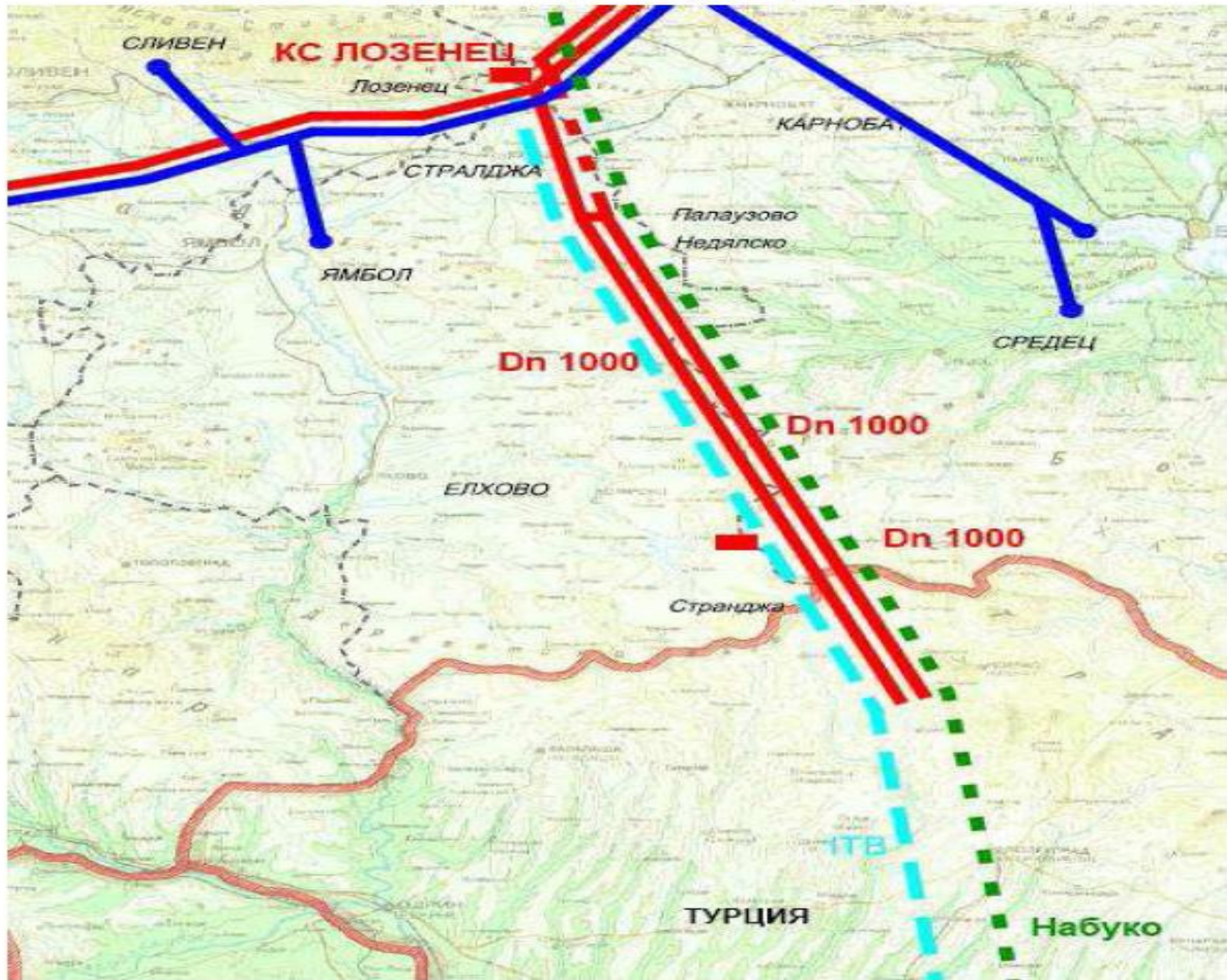
- Capacity 3-5 bcma
- Construction to start within 2013
- The duration of construction / commissioning scheduled to last for 18 months.

IGB has a wider regional importance (ranked first among EU Projects of Common Interest (PCI))

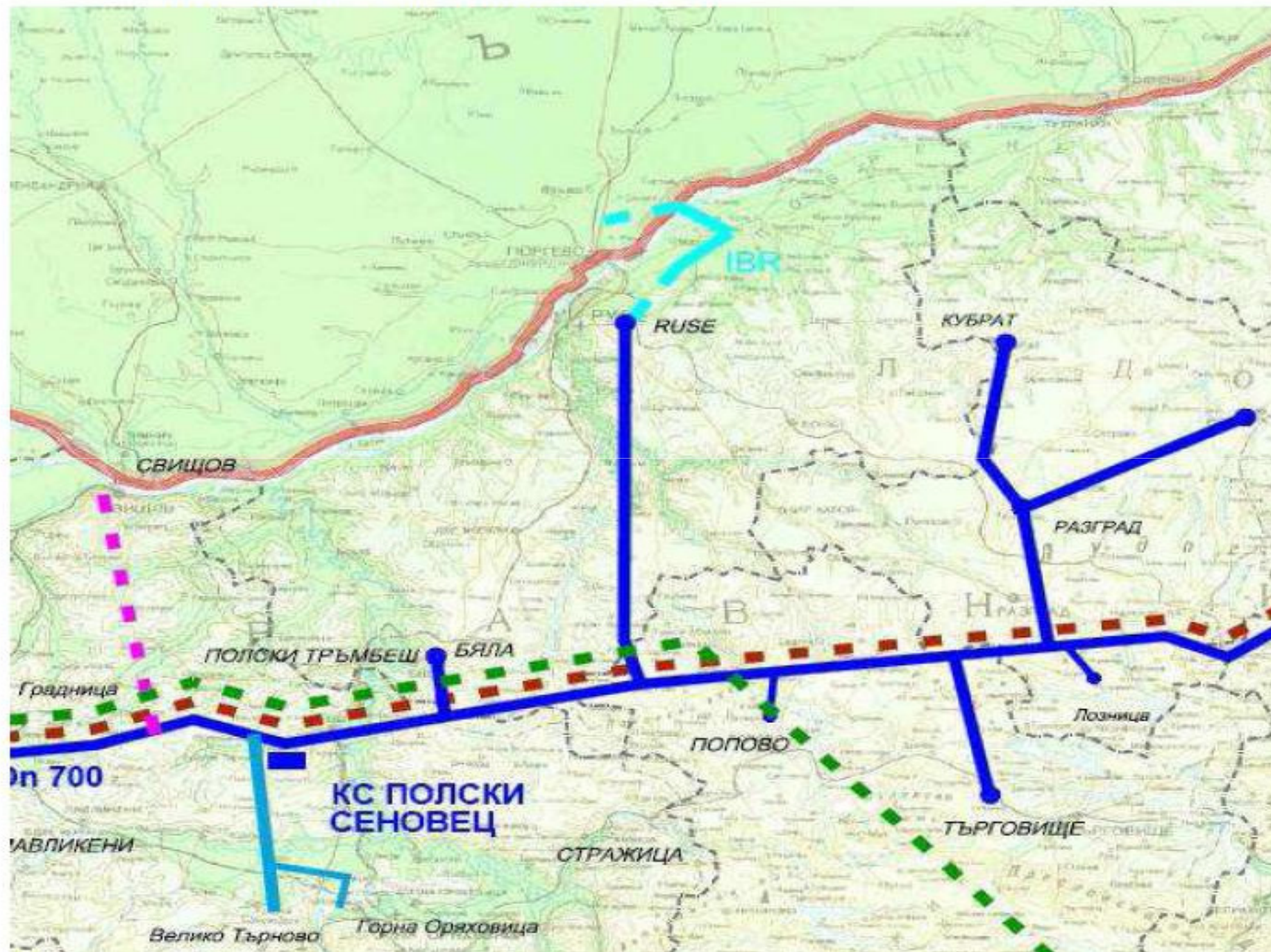
First gas is expected to flow
in 2015.



Gas Interconnection Turkey – Bulgaria (ITB)



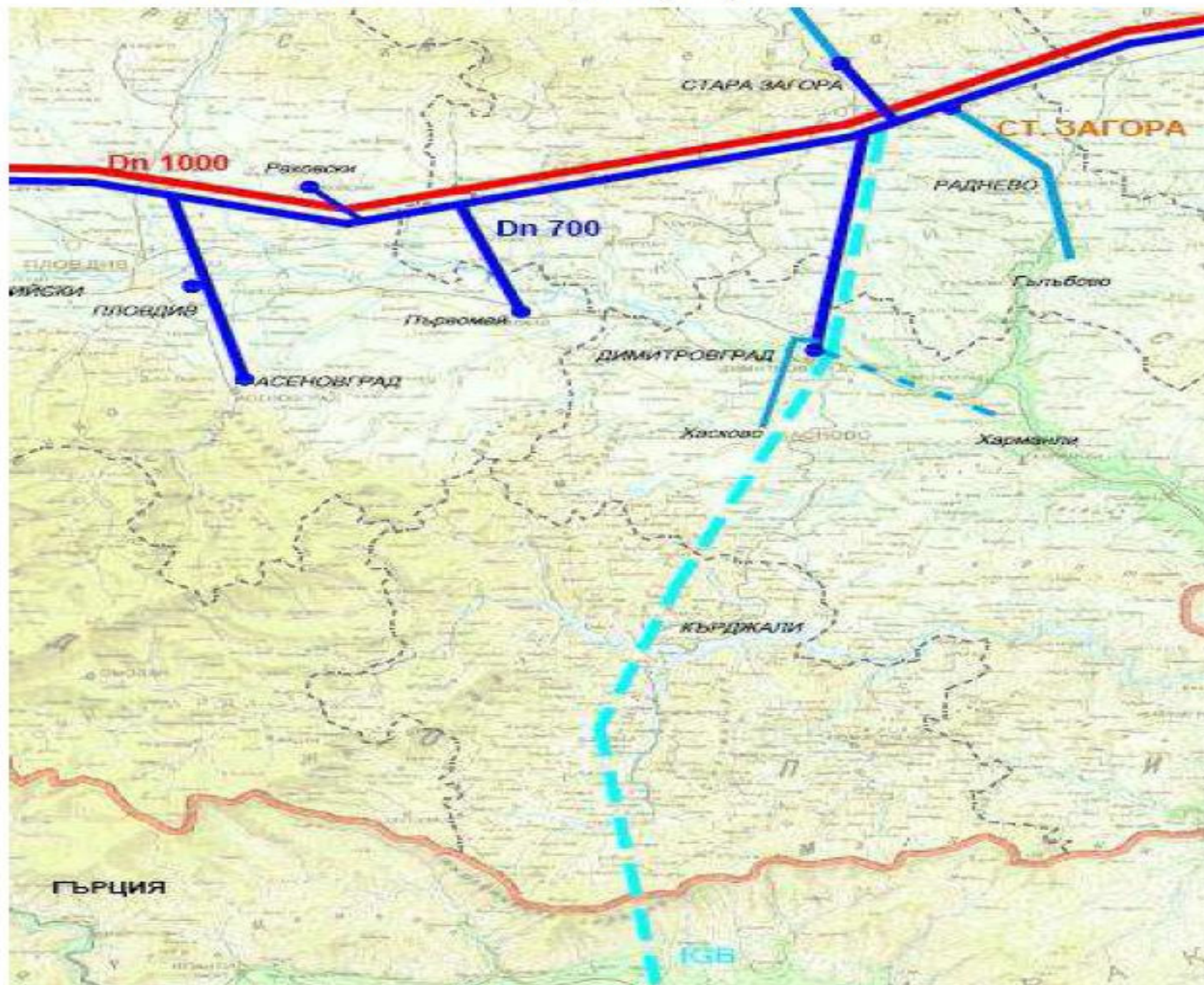
Gas Interconnection Bulgaria-Romania (IBR)



Gas Interconnection Bulgaria-Serbia (IBS)



Gas Interconnection Greece-Bulgaria (IGB)



**Anticipated marginal gas volumes and their origin.
Such volumes are most likely to be available for cross
border trading in SE Europe (2017 – 2020)**



- ❑ 0.5 to 2.0 BCM from South Stream and from Bulgaria's offshore fields
- ❑ 1.0 to 2.0 BCM from Greece (from Revithousa LNG, Alexandroupolis/ Kavala FSRU's and from South Kavala gas storage)
- ❑ 2.0 to 5.0 BCM from Turkey (from own gas system and transit from Azerbaijan and Iran)
- ❑ 1.0 to 2.0 BCM from Romania's own gas fields



Turkey's role in the development of a regional gas hub

- ❑ There are three important factors which make Turkey's role pivotal in the establishment of a SE European gas hub:
 - I. The substantial gas volumes that characterize its domestic market which is already well diversified in terms of suppliers
 - II. Its transit infrastructure which will allow additional gas quantities to flow towards Europe through existing (i.e. Greek – Turkish Interconnector) and planned routes (read TAP, West Nabucco and ITB)
 - III. Turkey's geographical proximity to European gas markets
- ❑ Turkey's contribution in establishing a SE Europe gas hub will be twofold, by guaranteeing physical product (gas) delivery and in Exchange trading terms (read Istanbul Exchange)
- ❑ Turkey's increased economic and trade cooperation with both Greece and Bulgaria over the last 10 years has helped create a positive climate for cross border commodity trading

TRANS ANATOLIAN PIPELINE (TANAP)





Gas Consumption Growth in Turkey (a)

- ❑ There has been a significant and sustained gas consumption growth over the last 10 years with a compound growth rate of 9.3% between 2004 and 2012
- ❑ Gas demand growth was directly linked to increase of electricity generation and industrial production and hence to GDP growth
- ❑ GDP growth has been spectacular (2011 – 8.5%) while it slowed down in 2012 to 4.5%
- ❑ In 2010 electricity was responsible for 51% of gas demand while industrial production correspondent to 32%
- ❑ Given that Turkey is 98% dependent on gas imports and storage capacity is limited to 2.6 bcm gas supply is critical and sometimes problematic (e. g. February 2012)



Gas Consumption Growth in Turkey (b)

- ❑ Although very high volumes of gas supplies were contracted in both 2011 and 2012 from all five suppliers (Russia, Azerbaijan, Iran, Nigeria, Algeria) of the order of 51.8 bcm, such a number represents a plateau level, indicating maximum possible delivery, with actual delivered quantities being less than the above number
- ❑ On the demand side, the development of supply with main lines determined by contract volumes at plateau level may not be able to meet total demand between 2015-2017, and even significant supply shortages may arise during cold winter days with peak consumption
- ❑ Therefore, Turkey needs to secure long term, reliable, and cost effective contracts and this needs to be done promptly



What Next?

- ❑ A comprehensive study needs to be undertaken at regional level in order to examine the feasibility of establishing a SE European gas hub.
- ❑ The proposed study should be carried out with the active participation of the three or four countries likely to be involved in the first phase of operation.
- ❑ The study will need to decide on the most suitable type of gas hub to be chosen and hence determine its characteristics.
- ❑ The study must also describe the operational model to be adopted and the proposed company structure which will own and run the hub on a day to day basis.
- ❑ From the very start close cooperation should be sought with the various stock exchanges, mainly, Istanbul Exchange (ISE), the Athens Exchange (ASE) and the Bulgaria Stock Exchange (BSE).
- ❑ Setting up the proposed gas hub should be a commercial rather than a political exercise, although governments should be fully informed of the process.
- ❑ Because of its commercial nature, key market participants including all major energy companies should be encouraged to get involved in the process of setting up the “gas hub” right from the start.



Concluding Remarks

- ❑ The Institute of Energy for SE Europe (IENE) is ready and willing to contribute toward realisation of the study and implementation of the proposed SE Europe Gas Hub.
- ❑ Already, IENE is involved with the preparation of a pre-feasibility study for such a gas hub. The results of this study to be announced later in the year and will be publicly available through IENE's web sites (www.iene.gr, www.iene.eu).
- ❑ IENE is keen to offer its good offices for the convening of an ad hoc group of industry representatives from different countries in the region to study the concept of a regional gas hub
- ❑ IENE wishes to invite Turkish organisations and companies to participate in this ad hoc group and also actively contribute in the preparation of the pre feasibility study currently under preparation.
- ❑ Upon completion of the above pre feasibility study IENE will be willing to organise a special presentation to Turkish industry and government representatives in Ankara or Istanbul and hence to have the benefit of a much needed feedback, a necessary step in the long process of setting up a regional gas hub.



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**Thank you for
your attention**

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