

# SEE Security of Gas Supply: Main Challenges and Perspectives with a Focus on Bulgaria

Istanbul, 29 September 2012  
TANAP Conference

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- Energy security: main aspects and Bulgaria's position
- European dimension of energy security
- Bulgarian gas energy sector: main challenges
- Policy conclusions

## Energy security: main aspects



Security and sustainability of supply

Access to energy resources in sufficient quantities

Economic affordability and protection from supply disruptions

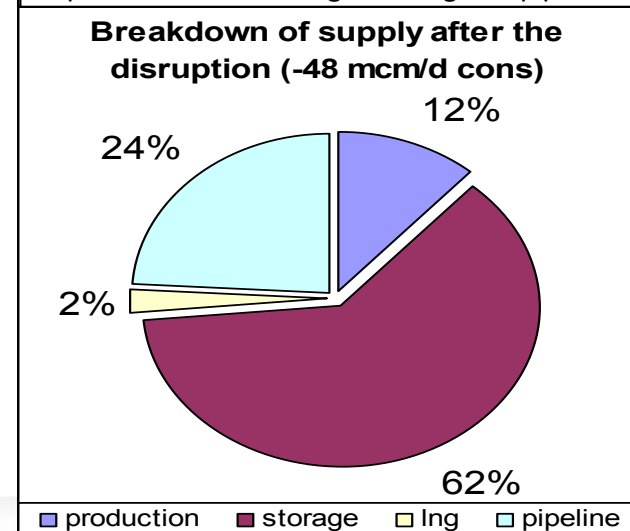
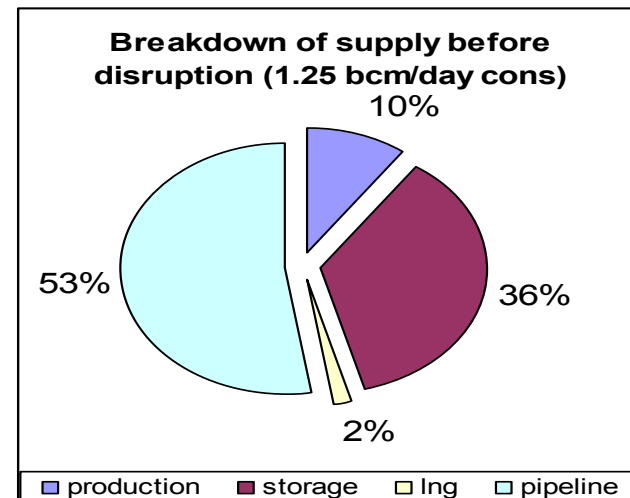
## European dimensions of energy security

- Developing intra-community mechanisms for security of supply: arriving at a diversified, clean and ecological energy mix
- Developing a common market for electricity and gas
- Integrating energy policy in the Common foreign and security policy
- Protection of critical infrastructure

# Gas crisis: simulation in the European gas transmission system

**Affected countries:** Germany, Poland, Czech Republic, Slovakia, Italy, Slovenia, Austria, Hungary, Romania, Croatia, Bosnia and Herzegovina, Serbia, Bulgaria, Macedonia, Greece

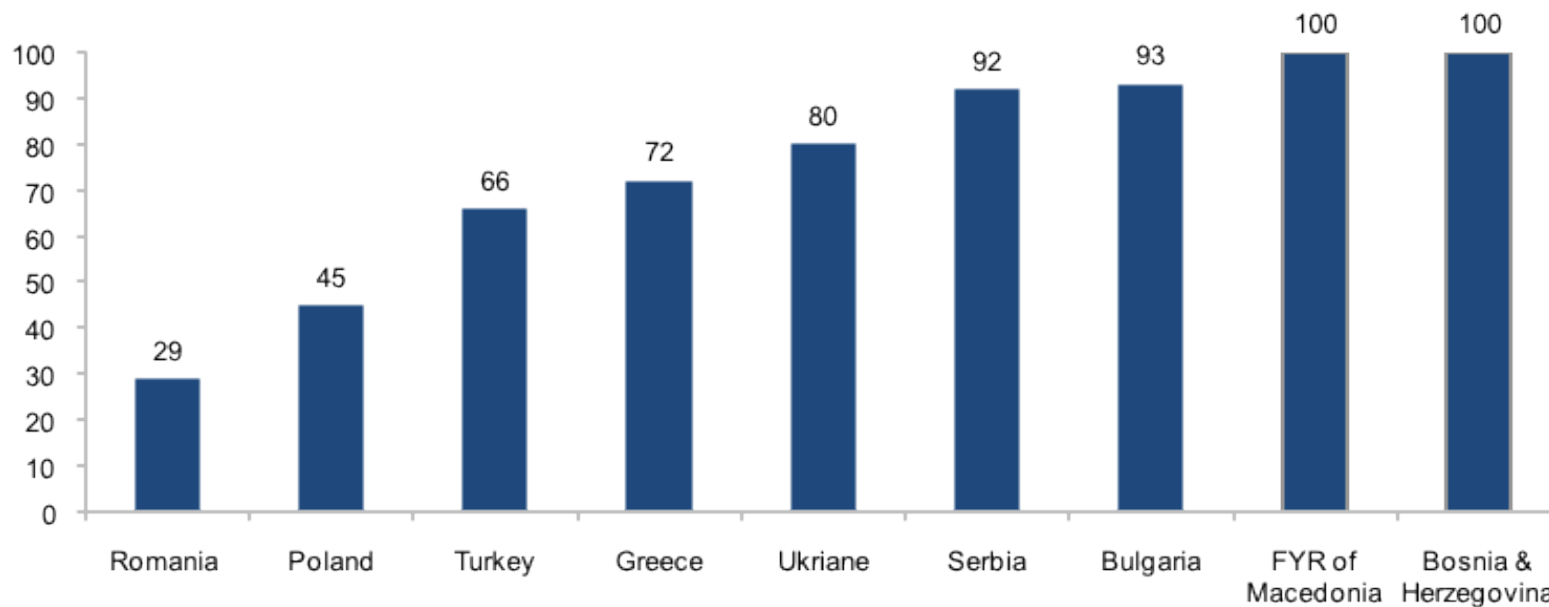
Changes in natural gas balance (mcm/day)					
	consumption	production	storage	lng	pipeline
Austria	0	1.3	17	0	-18
Bulgaria	-5	0	0	0	-5
Czech Republic	0	0	21	0	-21
Germany	0	0	130	0	-130
Greece	0	0	0	3	-3
Hungary	-15	0	15	0	-30
Italy	0	0	104	0	-104
Poland	0	0	4	0	-4
Romania	-18	12	7	0	-37
Slovakia	0	0	2	0	-2
Slovenia	0	0	0	0	0
Bosnia	-1	0	0	0	-1
Serbia	-8	0	0	0	-8
Croatia	0	3	0	0	-3
Macedonia	-1	0	0	0	-1



## Common SEE Challenges

- Poor indigenous natural gas resource base
- Lack of substantial reserve capacity
- Almost 100% import-dependency
- Insufficient regional gas integration
- Project overlap and challenging economics
- Governance issues: history of strong Russian presence, inefficient bureaucracy and rent-seeking behavior in state-owned energy sectors
- Limited geopolitical significance leading to lack of bargaining power in negotiations over strategic international projects

## Gas Import Dependence on Russia





## Natural Gas Sector

High concentration of imports through a single supply route

A monopoly in the oil and gas sectors

Monopsony (a single buyer) in the transit of gas

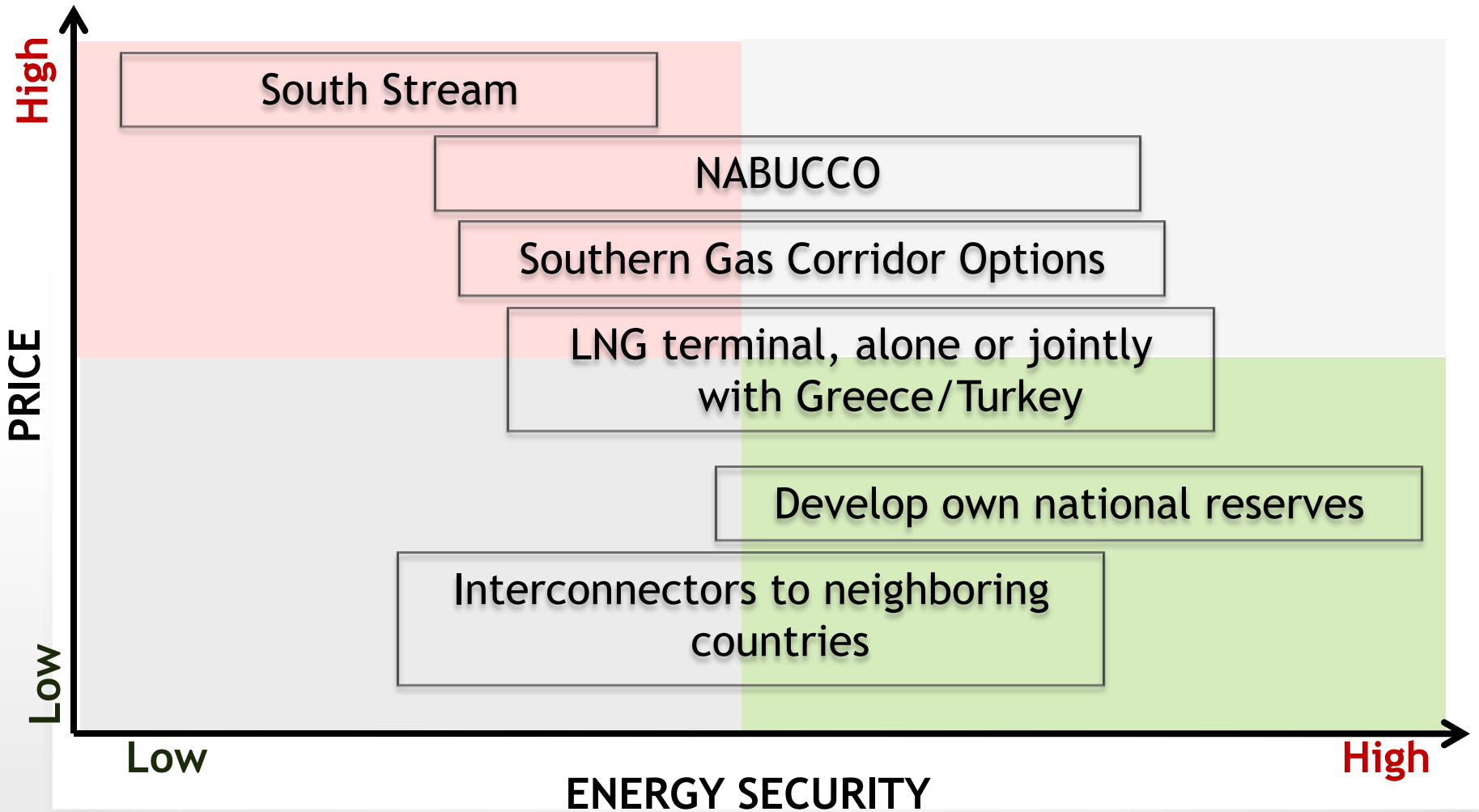
Lack of leverage in negotiations with the foreign supplier, who is also the sole user of the transit pipelines



## Factors of energy security: Bulgarian perceptions

- Geographic position: at a crossroads (?)
- Geological riches: poor (?)
- International relations: EU and NATO
- Socio-political system: young democracy - rule of law - inequality - instability
- Economic position: the poorest nation in EU
- One of the most gas insecure countries of EU

# Bulgaria's gas sector: energy security options matrix



# Cost effective gas supply security policy for Bulgaria

- Allowing reverse flow + LNG terminals - Greece and Turkey
- Ensuring effective dual fuel capability of heat plants
- Expanding Chiren storage capacity
- Interconnector to Romania
- Interconnector to Greece
- Other interconnectors + international projects

*Source: Cost Curves for Gas Supply Security: The Case of Bulgaria, Cambridge Working Paper in Economics 1056, Florent Silve and Pierre Noël*

## Alternative Solutions for Security of Gas Supply

- One choice: diversify routes and sources of the same fuel - gas
- Diversify the supply of substitutes: RES and/or Nuclear

## Some Conclusions

- Since the gas crisis of 2009, bold action plans for strengthening the SEE gas security have been drafted
- There are strong external limitations to achieving SEE security of supply related to the limited geopolitical and geoeconomic leverage of SEE countries
- In terms of large international pipeline projects planned for the SEE region, it is clear that the new routes would bring the region some advantages regarding its supply, however these advantages are far from uniform
- Other solutions might be better and less costly

**Thank You!**

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