EU security of gas supply
Potential role of LNG in case of gas flows disruptions from Russia

Vienna, 15 July 2014
Introduction

• The political tensions in Ukraine have re-opened the issue of potential disruptions of transit from Russia
• Europe has been preparing itself to react to crises and, in particular, use alternative supply routes and sources
• Following the 2009 crisis, the resilience of the system has been improved
  – SoS Regulation (EU) 994/2010 has introduced new infrastructure standards (reverse flows at IPs, N-1)
  – Aim: developing solidarity between Member states by sharing flexibility
  – Investigations about the role LNG could play due to the existing regasification capacity and the geographical flexibility it offers
The role of LNG in SoS

• LNG is important in terms of security of supply as it offers access to diversified sources:
  – 17 countries exporting LNG at the end of 2013
  – Key exporters for Europe are Qatar, Algeria, Nigeria and Trinidad

• The EU has 19 regasification terminals and their current rate of utilization is low (20% on average in 2013)
  – Total regasification capacity of 186 bcm in 2013
  – Total LNG deliveries in 2013 of around 49 bcm

• What could be the role of LNG imports in supply crisis scenarios as regards as gas deliveries to the EU?
European Imports from Russia in 2013

- The Russian gas imports in 2013 were approx. 130-140 bcm.
- LNG terminals are essentially located in the West while the countries potentially affected by a transit disruption through Ukraine are in Central and Eastern Europe.

Gas imports from Russia per country

Source: NRAs and EUROGAS (data in blue: 2012 Russian gas imports)
Regasification capacity available in Europe vs Russian gas imports

- 137 bcm of regasification capacity in Europe were not used in 2013 (73% technical capacity)

Source: NRAs

21/07/2014
Transmission capacity to move gas to eastern Europe

• Theoretically, the EU LNG terminals could receive 137 bcm of additional LNG in 2014 (on top of the 49 bcm delivered in 2013)

• The potential flow of LNG eastward would be limited by constraints on transmission network:
  – EU system primarily designed to accommodate historical predominant flows from North to South and East to West;
  – Reverse flow capacities have substantially increased in the past years...
  – ...but significant investments would be required to enable a major LNG ‘counterflow’ to Central and Eastern Europe.

• Other limitations to the potential role of LNG would appear in a crisis situation, taking into account:
  – Scenarios of high demand;
  – Simultaneous maximization of all remaining import sources and of storage use.
Demand and supply worldwide - Liquefaction and regasification

- Tight supply-demand dynamics in the global LNG market:
  - 2.5 times more regasification capacity than liquefaction capacity in the world today;
  - Surge in LNG demand, 29 import countries

- Most analyses suggest that the LNG market could remain supply-constrained in the medium term:
  - Few new liquefaction additions in the short run
  - Demand in Asia Pacific likely to remain high
  - Nevertheless, new opportunities might arise (new exporting countries: shale gas)

21/07/2014
Conclusions

• Ukraine still plays a very important role in EU gas supplies, interruptions could have dramatic consequences for many Member states
• The EU is investigating all the potential means to maximise the resilience of its gas system
• In case of supply disruption, scenarios of increased LNG deliveries in BE, PT, ES, FR, GR, IT, NL and UK would help covering Europe’s needs and free up pipe-gas for the other parts of the EU
• Transmission capacity seems to be a limiting factor; the European network has not been designed to flow gas from LNG terminals along Europe
  – Due to the limited potential for eastward flows on the EU transmission network, the loss of Eastern gas supplies cannot be compensated only with LNG imports
  – In “worst-case” scenarios, a combined response would be the most efficient (storage use, increased imports from all alternative sources, increased domestic production…)
• Given the tightness of the global LNG market, the return of LNG to Europe could imply significant price increases at European hubs