EU natural gas demand and supply

Group of Experts on Gas – Fourth Session

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DG Energy, B2

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European Commission

- *The EU committed to decarbonise its energy mix.*

2030 Energy and Climate Framework

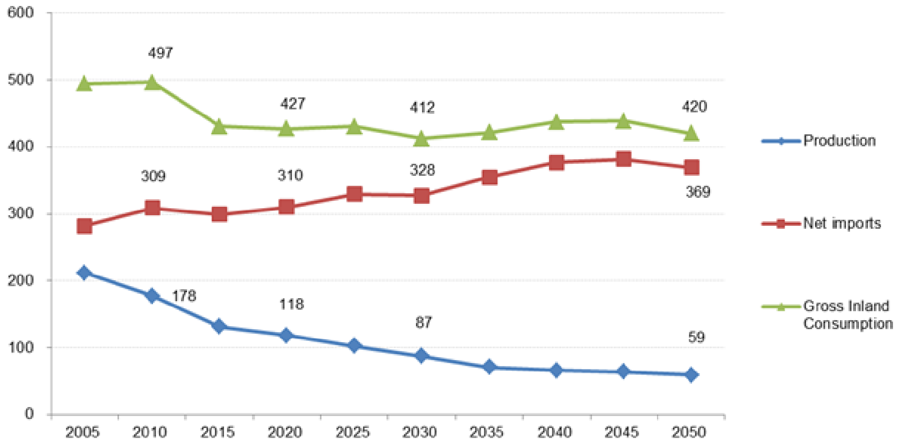
- 40% cut in emissions
- Min. 27% energy from renewables in energy mix
- Min. 27% improvement in energy efficiency

- *Natural gas plays a major role in the EU energy system and it is expected to maintain an important share in the fuel mix up to 2030 and beyond, in particular as a back-up technology for variable renewables.*
- *This requires a truly competitive natural gas market and ensuring that infrastructure projects are implemented on time.*

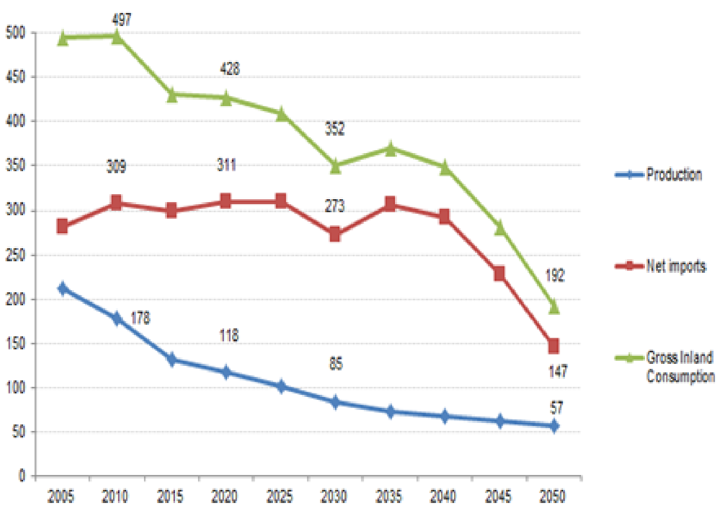
European Commission

A snapshot at the projected evolution for natural gas

EU reference scenario 2016



EUCO30 scenario



Gas – production, net imports and demand (bcm)

EU Reference Scenario 2016:

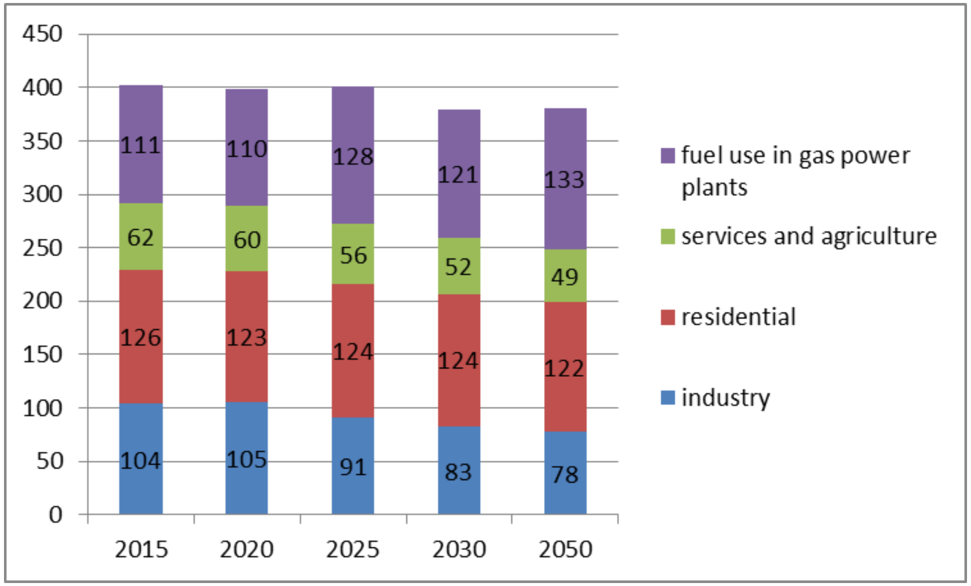
- Domestic production of gas projected to continue its downward trend
- Up to 2020, gas consumption expected to remain stable; post-2020, slight decrease projected before bouncing back
- EU imports to slowly but steadily increase

Source: PRIMES

Focus on natural gas demand*

- Gas-fired generation decreases until 2020, but increases thereafter, due to higher CO2 prices and more favourable coal-to-gas price ratios
- Consumption slowly decreases in industry and services sector, notably due to energy efficiency improvements embedded in new technologies
- Consumption remains stable in the residential sector, in a context of growing population, driven by energy efficiency policies pre-2020 and technology developments post-2020

Evolution of gas demand by sector



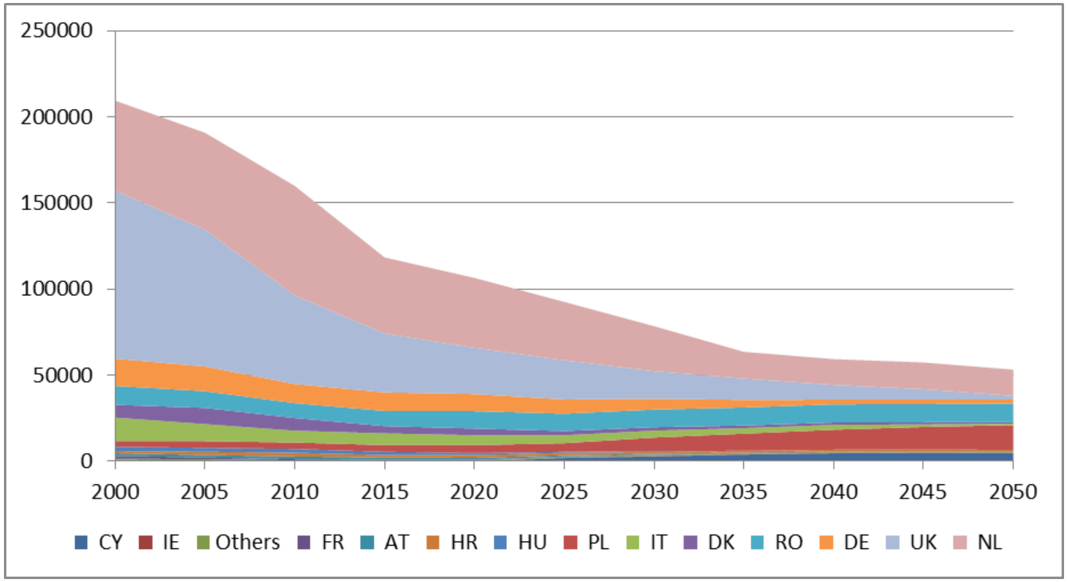
Source: PRIMES

* EU Reference scenario 2016

Focus on natural gas supply*

- Constantly declining production at EU level (esp. due to UK and NL production decline)
- Small increase projected from PL and CY, as a result of exploitation of large indigenous resources
- Shale gas assumed particularly limited (public acceptability issues and lack of policies supporting it)

Gas production (Mtoe), per MS



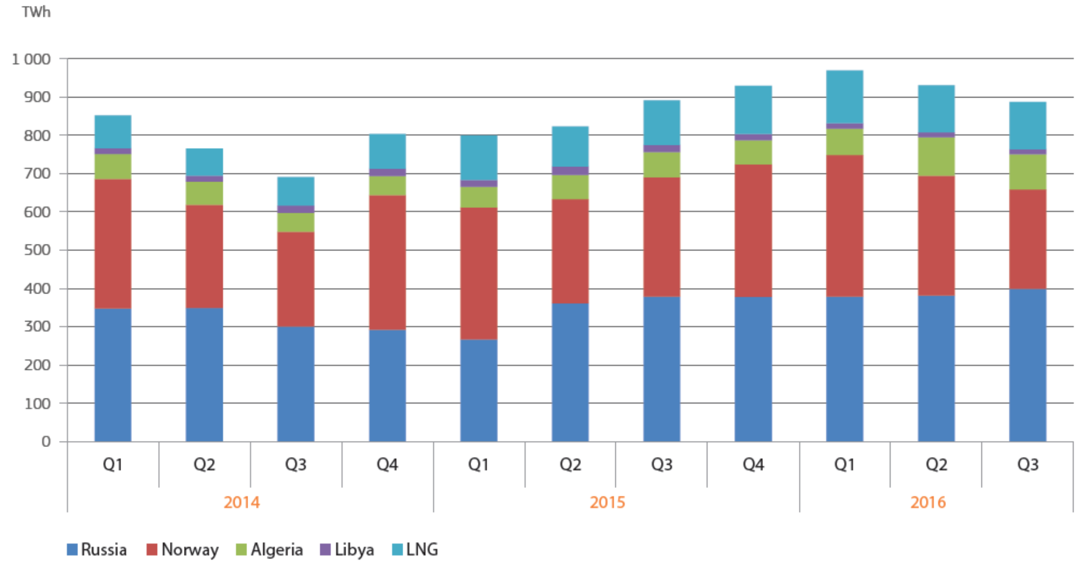
Source: PRIMES

* EU Reference scenario 2016

Evolution of imports

- Growing consumption and falling indigenous production both contributed to the rise of imports.
- Russia remained the main supplier of the EU. Falling oil-indexed prices allowed it to gradually increase its market share.
- Imports of LNG increased throughout 2016

EU imports of natural gas by source, 2014-2016



Source: EC, DG Energy quarterly report on European gas markets Vol. 9, based on data from ENTSOG Transparency Platform

Diversification

- *With decreasing domestic production, the EU's import needs are likely to continue to grow, at least in the short- to medium term.*
- *Energy diversification, in particular access to new sources, is crucial for ensuring secure and resilient energy supplies to EU citizens and companies.*
- *This EU diversification policy is based on striving for alternative supplies for the EU, through the development of*
  - *the Southern Gas Corridor,*
  - *liquid gas hubs in the Mediterranean,*
  - *access to LNG available to all MS and*
  - *by putting EU energy diplomacy in the service of these diversification efforts.*

Important tools for diversification and flexibility: LNG and storage strategy

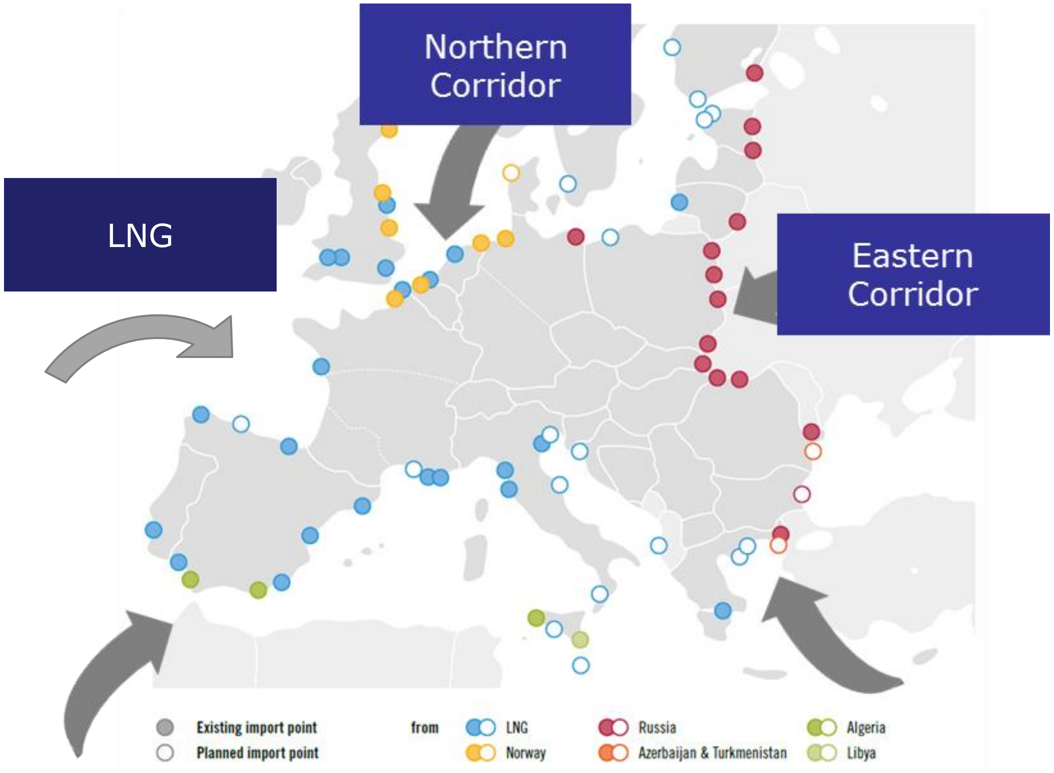


Figure 5.1: Existing and new import sources and routes[2)]

Objective:

To make sure all Member States have access to LNG as an additional gas source and to sufficient storage capacity, in particular in vulnerable Member States (Central- and South-Eastern Europe), either directly or indirectly (in a regional context) and to make the EU attractive for LNG

- Attract LNG: Complete the internal energy market
- Get it where it's needed
- Promote efficient global markets

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Strengthening security of gas supply

- *Security of supply is a key objective of the European Union.*
- *The level of preparedness and resilience of the gas system has significantly improved since 2010 thanks to the Gas Security of Supply Regulation (994/2010). However, the experience with its implementation suggested a number of areas for improvement.*
- *The EU must meet the challenge based on <u>deeper cooperation</u> between Member States and the <u>reinforcement of preventive measures</u>.*
- *The main directions of the revision of the Gas Security of Supply Regulation are the strengthening of the regional approach and solidarity, defining clearly when market gives way to emergency, development of joint approaches, coordinating and cooperating in emergency planning and intervention.*

Internal Gas Market

- *The European Commission is undertaking work to complete the internal gas market: developing harmonised market rules and supporting and enforcing the effective implementation of legislation already in place (3rd Energy Package and Network Codes in gas).*
- *From a regional perspective the Commission is focusing on 3 key areas in the gas sector for which it has set up High Level Groups: Baltic Energy Market Interconnection Plan, South-West Europe and Central and South-Eastern European Gas Connectivity.*

BEMIP

South-West

CESEC

Looking forward

Market rules

- *In the EU the rules for access to gas infrastructure at transmission level are by now harmonised to a large extent.*
- *Implementation of 3rd Package and network codes still ongoing and must be completed in all Member States.*

Market functioning

- *EU gas markets have developed well in recent years.*
- *EU gas transmission infrastructure is mature – investment is targeted towards security of supply and diversification projects, e.g. through CESEC.*

*Commission study on **Quo Vadis EU gas regulatory framework***
To assess whether – beyond implementation of existing rules – the functioning of the European gas markets and the overall EU welfare can be improved through amending the current regulatory framework

Thank you for your attention!

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