Connecting Markets

Gas Transmission in the Czech Republic and CEE

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Company Snapshot

NET4GAS is a strategically positioned gas TSO in Central Europe

NET4GAS at a Glance

- Holds an exclusive license for gas transmission in the Czech Republic
- Operates 3,800 km of high-pressure pipelines incl. “GAZELLE” which since 2013 connects the Czech Republic to the new northern export corridor for Russian gas into the EU (“Nord Stream”)
- Operates four compressor stations, three border transfer stations and nearly a hundred domestic transfer stations
- Transmits 45 bcm/a, out of which 80% for international gas transit and 20% for domestic gas consumption
- More than 500 employees

At the Heart of European Gas Flows

- NET4GAS can flexibly react to changing gas flow patterns in Europe and secure gas transit to different markets due to
  - its strategic position within Central Europe
  - bi-directional capacities at all major cross-border points
  - sufficient spare capacities
- 20% of NET4GAS’s revenues are from domestic gas transport, while the total share of gas transport cost in end consumer prices in the Czech Republic is approx. 1%

NET4GAS's Shareholder Structure

The company's sponsors are some of the strongest in the industry

Allianz Capital Partners (50%)

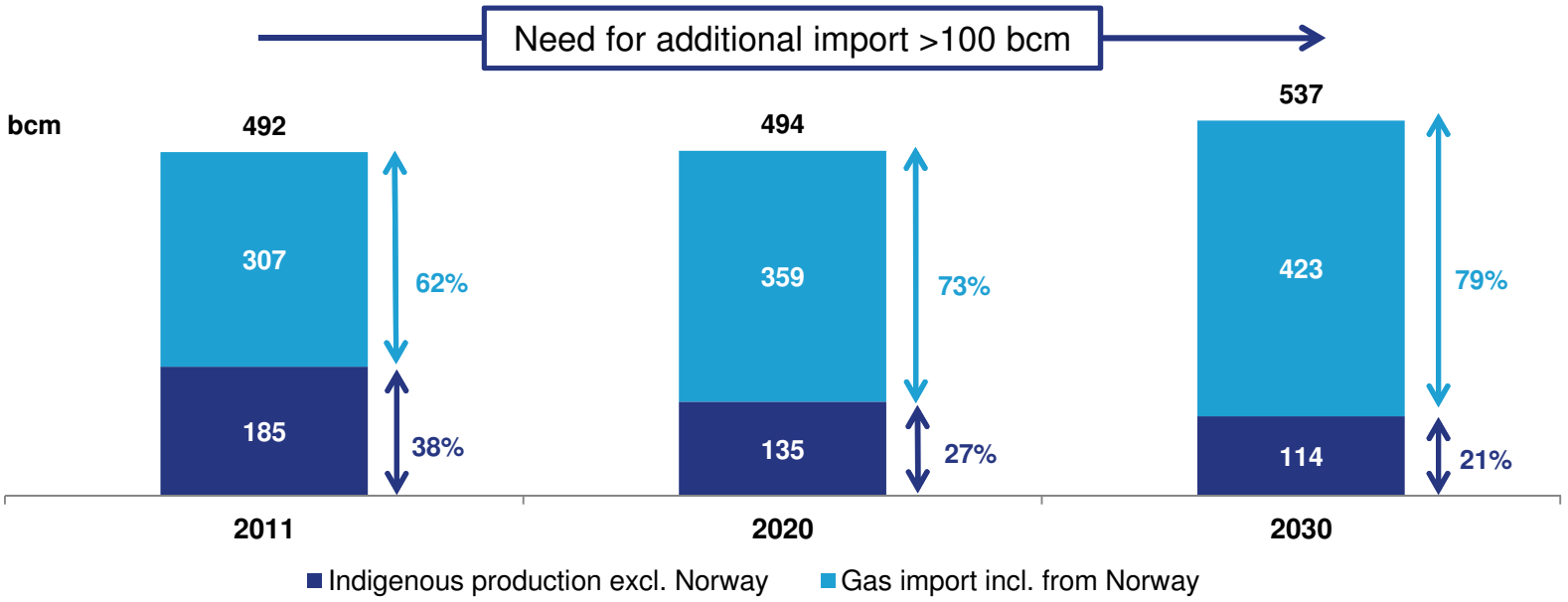
- Allianz is Europe's largest insurer and the world's second largest asset manager, with more than EUR 1.8trn of total assets under management
- Allianz serves more than 78m customers in about 70 countries, and is the third largest insurer in the Czech Republic with EUR 276m gross written premiums in 2013
- Allianz Capital Partners (ACP) was founded in 1998 to invest the capital of Allianz insurance companies in alternative assets like infrastructure and renewables
- ACP currently has approximately EUR 9bn assets under management and has 42 investment professionals based in Munich, London, New York and Singapore
- Current ACP's infrastructure portfolio includes:
  - NET4GAS acquired in 2013
  - Gassled acquired in 2012
  - Chicago Parking Meters acquired in 2009

BOREALIS Infrastructure (50%)

- OMERS (Ontario Municipal Employees Retirement System) is one of Canada's leading pension funds with c. CAD 65bn in net assets as of 31 December 2013
- Borealis is the Infrastructure arm of OMERS, investing in infrastructure since 1998
- Borealis oversees a global portfolio of c. 20 companies with the total equity value of c. CAD 12bn
- Borealis is a long-term investor focusing on high quality businesses with predictable, stable underlying economics
- Current Borealis Infrastructure portfolio includes:
  - Caruna (electricity distribution) acquired in 2014
  - NET4GAS acquired in 2013
  - High Speed 1 (railways) acquired in 2010
  - Teranet (electronic land registration) acquired in 2008
  - Associated British Ports acquired in 2006
  - Scotia Gas Networks acquired in 2005

Anticipated Demand/Supply Situation in Europe

Stable gas demand, but decrease in indigenous production leading to major supply gap post 2020

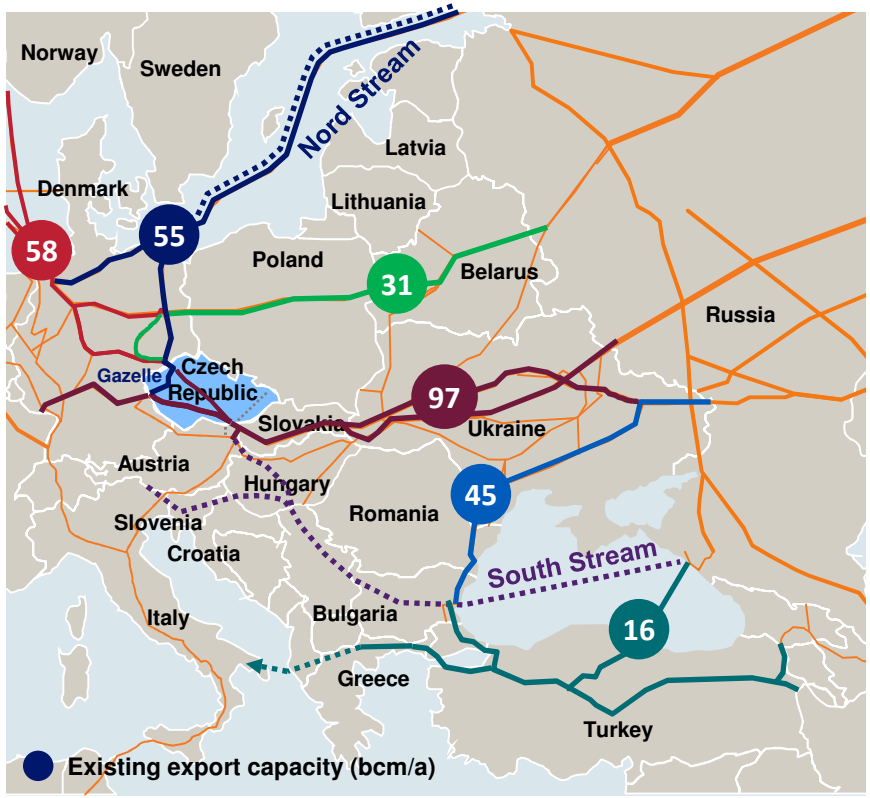


Source: OECD/IEA, "World Energy Outlook"

Transit Business Overview

NET4GAS is at the crossroads of the main transit corridors in Europe

Main Export Routes for Russian Gas into EU and Turkey*



* *additional 5 bcm via Belarus, 5 bcm via Ukraine and 7 bcm to Finland not shown here*

Description

- Overall export pipeline capacity for Russian gas into EU and Turkey is c. 260 bcm/a; South Stream and Nord Stream extension could increase capacity by 118 bcm
- NET4GAS is connected to the main corridors for Russian gas into the EU
  - **Ukraine->Slovakia transit route**
  - **Belarus->Poland transit route**
  - **Baltic Sea->Germany transit route**
- c. 80% of NET4GAS's revenues are generated by transit:
  - Historically, gas has been transported from the eastern border of the Czech Republic to the western border
  - Construction of Nord Stream and Gazprom's desire to by-pass Ukraine have changed gas flow patterns in Europe
  - NET4GAS has adapted to changing gas flows by construction of Gazelle pipeline and implementation of physical reverse flow in direction of Slovakia

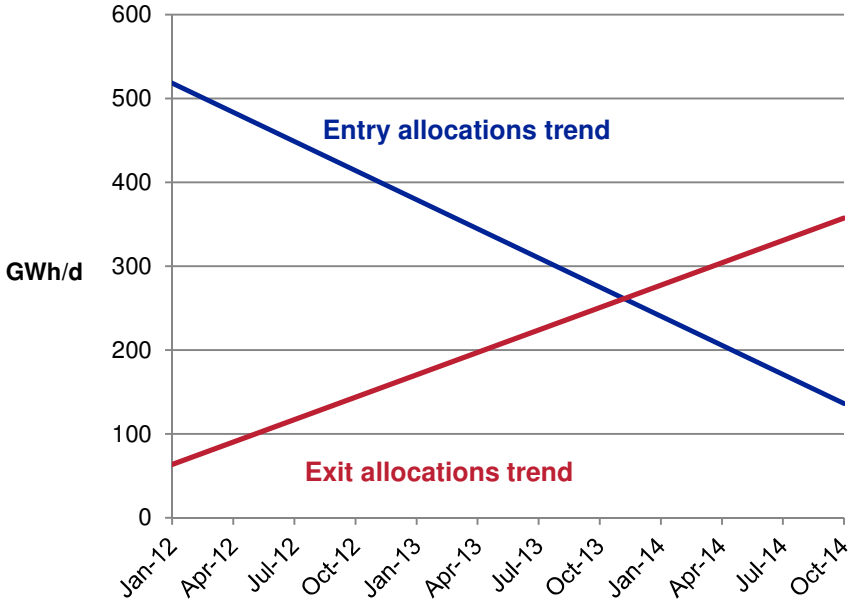
Reverse Flow (West > East)

Nord Stream has led to new gas flow patterns In Europe, CEE/SEE now partially supplied through the Czech Republic

Gas flow reversal since 2013

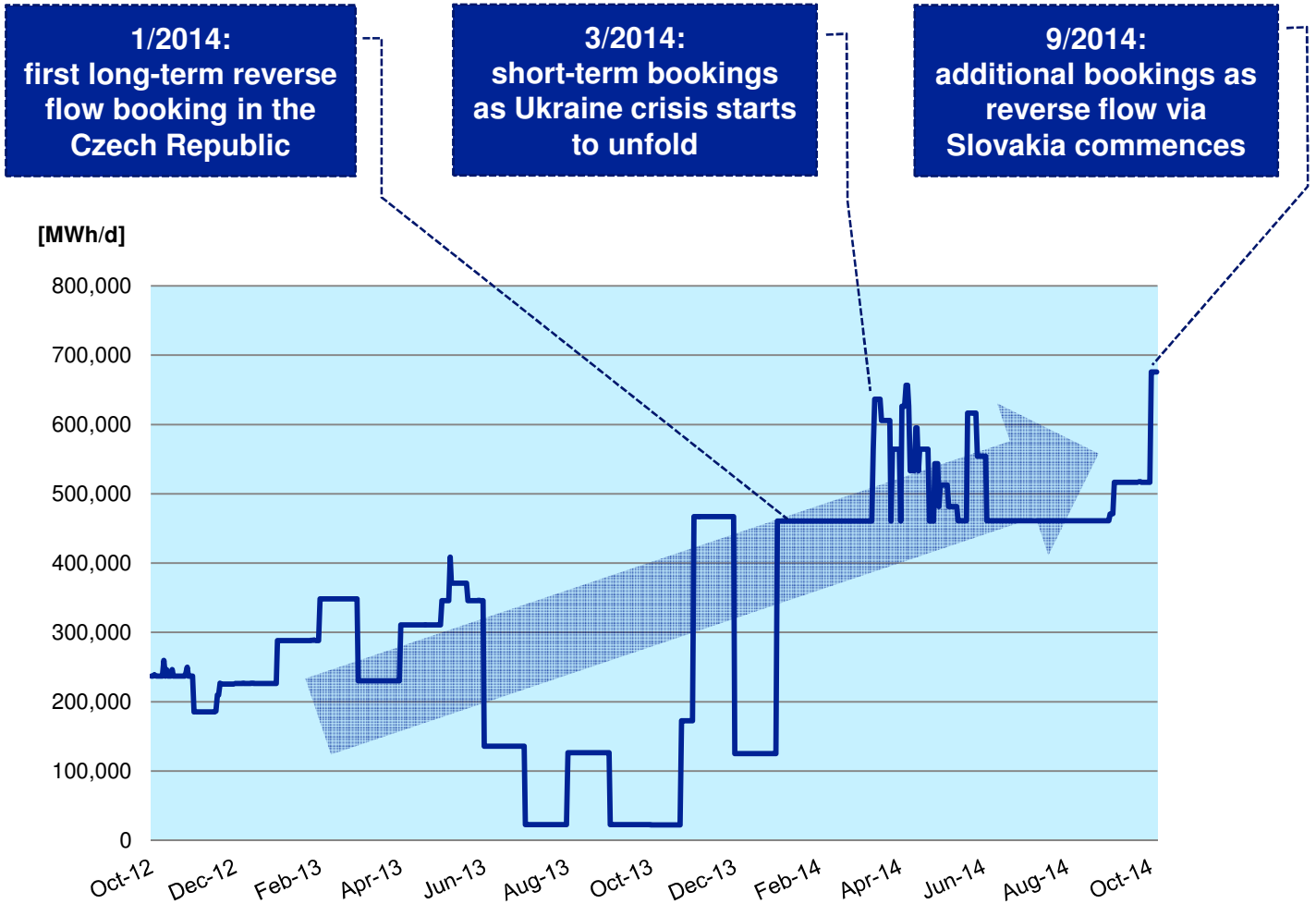
- Total flows from Slovakia to the Czech Republic have been falling since 2009 and physically reversed in 2013 as flows through Ukraine to Waidhaus/Germany have been replaced with those through Nord Stream, OPAL and Gazelle
- NET4GAS believes that this trend will continue to the extent upstream and downstream capacities are available for supplying CEE/SEE from the north via Nord Stream and Yamal-EuRoPol
- The reverse flow trend has been recently underpinned by short-term bookings in the context of the Ukraine crisis and Western deliveries to Ukraine via Slovakia

Gas flow at the Czech/Slovak border since 2012



Reverse Flow (West > East)

Exit bookings at the CZ/SK border reflecting the geopolitical situation



The Ukraine Crisis

Four stress test scenarios defined by the European Commission (August 2014)

Disruption of

S1) Ukrainian route to the EU during a period of 1 month (1/2/2015 -28/2/2015)

S2) Ukrainian route to the EU during a six month period (1/9/2014-28/2/2015)

S3) all Russian supplies to the EU during a period of 1 month (1/2/2015 -28/2/2015)

S4) all Russian supplies to the EU during a six month period (1/9/2014-28/2/2015)

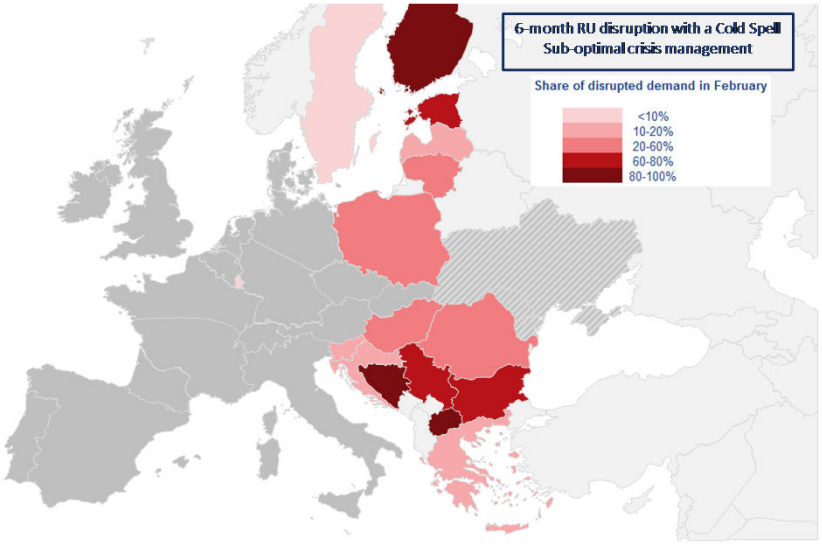
S1) + S2) With high likelihood no supply restrictions in CR (assuming appropriate fill level of storages and sufficient access to import volumes via Germany)

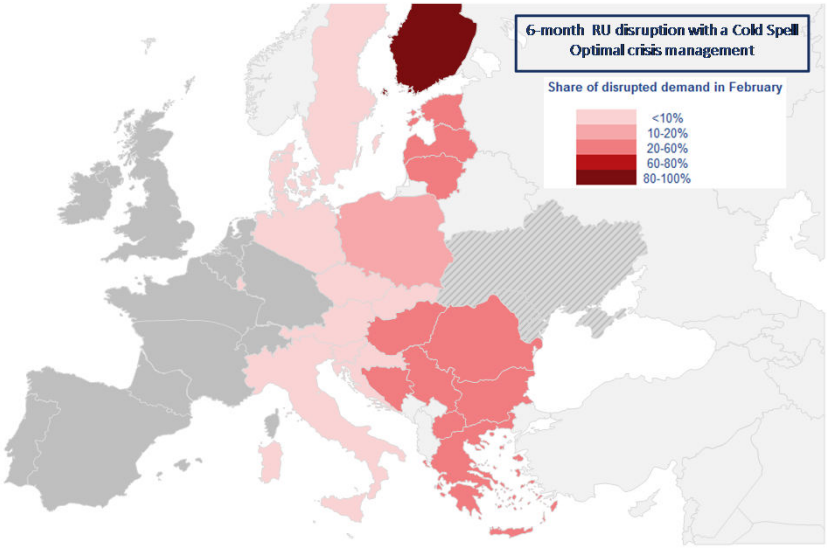
S3) + S4) Supply restrictions for Czech customers can hardly be avoided, but supply of protected customers can be achieved (even under S4)

Transmission capacities of NET4GAS (and other infrastructure capacities in CR) sufficient, but availability of commodity causing constraints in extreme winter scenarios

The Ukraine Crisis

Stress test results presented by the European Commission (October 2014)





- The results largely depend on the input parameters (e.g. ambient temperature, storage utilization, degree of solidarity between member states)
- Compared to 2009 the situation has significantly improved across Europe
- In extreme situations, access to commodity is not sufficient and there are still bottlenecks in terms of interconnection capacities

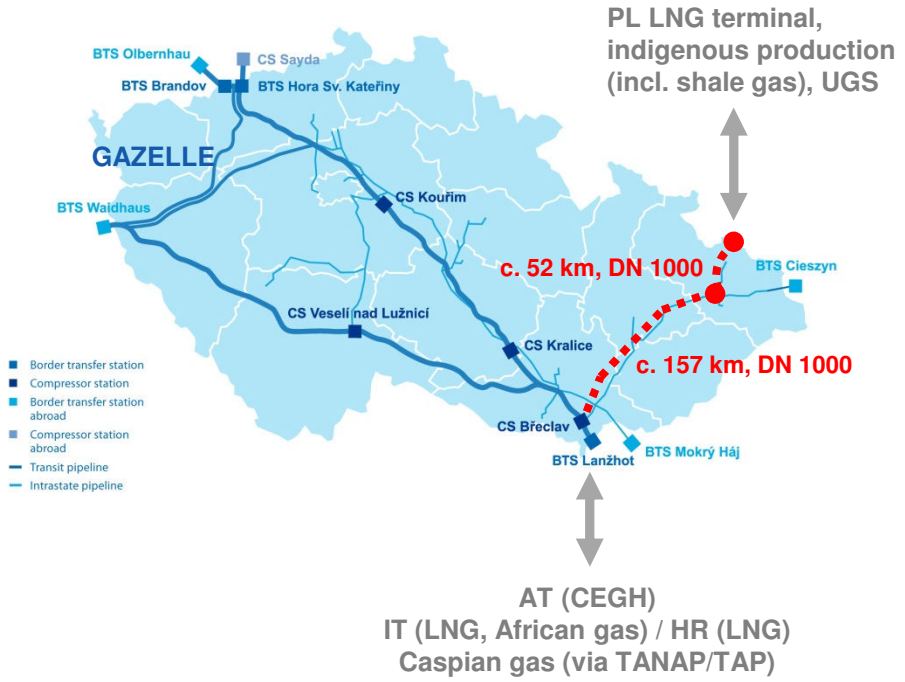
The Polish/Czech Gas Interconnector project

Diversification of supply routes and sources for CEE/SEE markets

Project description

- The project is designed to:
  - establish the missing North-South gas corridor in central Europe and connect the Czech Republic to the LNG terminal in Poland
  - support market integration thus enhancing competition and contributing to lower gas prices
- Project status:
  - Environmental Impact Assessment done in 2012
  - project granted Project of Common Interest ("PCI") status by the EU Commission in 2013 and short-listed as priority project in 2014
  - positive decision by the Czech and Polish regulator in June/October 2014 (Czech decision currently under review)
  - application for EU funds in August 2014

Infrastructure Map



The project is crucial for enhancing security of gas supplies in Central and Eastern Europe and it will also foster market integration.

The Polish/Czech Gas Interconnector Project

Pipeline route, investments and gas transmission capacities

Pipeline route

Capacities benefiting PL 19.6 mcm/d

Odolanów (CS)

Total CAPEX estimated at c. **500 m€****

Wroclaw, Kielczów

Kedzierzyn (CS)

Compressor Station for STORK II

STORK II

Hať

Libhošť

Total CAPEX estimated at **386.6 mEUR****

New Moravia pipeline*

Nat. Transport: 14.2 mcm/d

Nat. Transport: 8.7 mcm/d

Transit PL (STORK I): 1.44 mcm/d

Tvrdonice, Břeclav (CS)

Moravian DN700***

* not part of PCI list yet
** in real terms 2013
*** existing

Capacities benefiting CR 13.7 mcm/d

The Polish/Czech Gas Interconnector Project

Content and result of the investment request

Market Perspective

Business Case

NPV < 0 (i.e. business case negative)

- market survey 2012/13
- based on today's tariffs
- discount rate 5%

Cost-Benefit Analysis ("CBA")
PL 59.75%, CR 40.25%

Benefits >> Cost

- draft ENTSOG methodology
- quantitative analysis positive (N-1, …)
- qualitative analysis (saved costs of CO_2, gas price effect, new jobs during implementation, avoided supply interruptions)

TSO Perspective

Cross-border Cost Allocation ("CBCA")

- cost split according to the CBA ratio (app. 40/60)
- not depending on bookings but mutual inter-TSO payment guarantees, which should be eligible cost in regulation

Positive CBA: The project should be implemented from a macroeconomic perspective
TSO perspective: Proper CBCA mechanism and fair regulatory remuneration needed for FID

Conclusions

- Uncertainties related to the future role of (Russian) natural gas in the European energy mix make it more difficult for TSOs to take investment decisions and secure fair remuneration for existing assets in the long run
- Security of supply and political aim to enhance European market integration have become the main drivers for cross-border investment projects (whereas market demand is often not sufficient to make large-scale projects economically viable)

Tools for securing financing of projects and fair remuneration of existing assets have to be further developed at European level in order to create sufficient long-term stability and visibility for gas infrastructure business

Dr. Barbara Hendricks, German Minister of Environment (9 October 2014):

"Natural gas contributes to the diversification of energy supplies and thus also to enhancing competition between different fuels. It has environmental advantages compared to other fossil fuels. It can be flexibly used and therefore is a good partner for renewables , e.g. by blending natural gas with biogas or synthetic methane produced from renewable surplus electricity. Due to the afore-mentioned advantages , the competitiveness of gas-fired power plants can significantly contribute to achieving the climate targets.

On the other hand, coal is currently unrivalled in its affordability. Thus efficient gas-fired power plants cannot be operated economically, resulting in a negative climate impact.

Therefore, the German government is working on three reform programs:

1. A reform of the European emissions trading scheme
2. The 2020 climate protection program
3. A reform of the electricity market in order to define new rules for the combination of fossil fuels and renewables

These reforms will strengthen the market position of gas-fired power plants."

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Děkuji vám za pozornost

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