# Energy security in the EU through an Energy Union

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Madrid, 19 January 2015

# Key messages

1. Reduce the fragmentation of EU gas markets to attract more foreign suppliers

2. Match the power of single sellers by purchasing gas jointly

3. Support the build-up of cross-border interconnection infrastructure through regional initiatives

# Agenda

- Background
- EU energy security strategy
- First steps towards an Energy Union
  - Reducing fragmentation
  - Purchasing gas jointly
  - Regional initiatives

# The EU is a net importer of energy

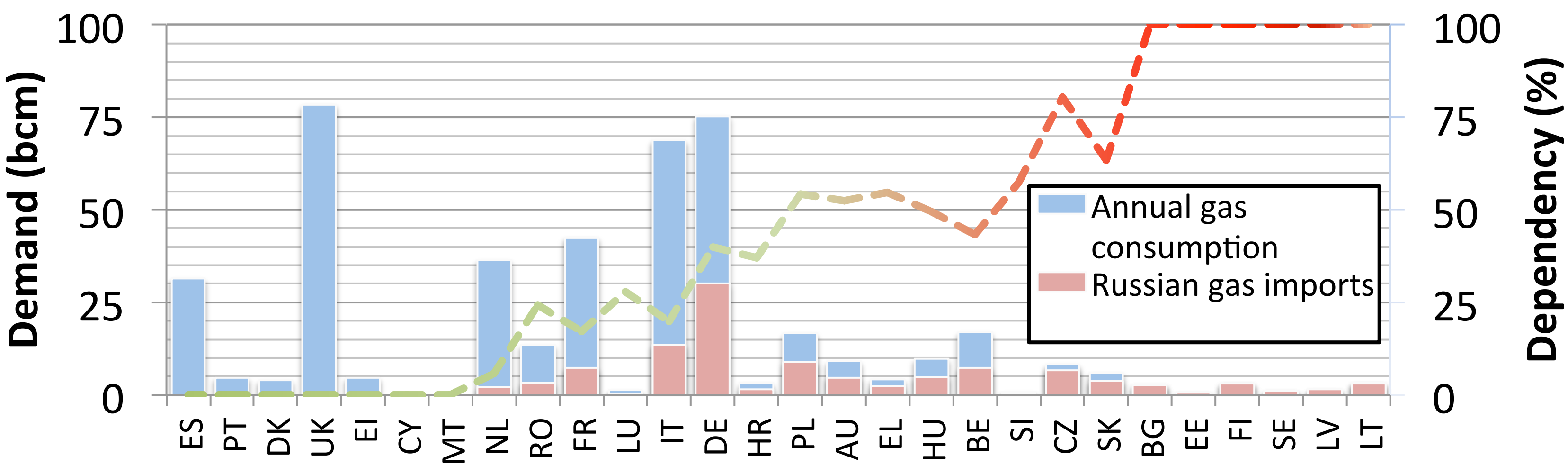
- Energy security is (once again) high on the EU agenda in light of the 2014 Ukraine-Russia crisis
- Significant attention devoted to high import dependency, especially from Russia, especially to gas import dependency
- The EU imports ~53% of the energy it consumes
  - Import value: >€1 billion per day, ~€400 billion per year

| | Solid fuels | Natural gas | Crude oil |
|---|---|---|---|
| **Overall dependency** | 42% (hard coal: 62%) | 66% | 88% |
| **Dependency from Russia** | n.a. (hard coal: 27%) | 39% | 33% |

Sources: European Commission, Eurocoal (2013)

# ...but situation differs greatly within the Union

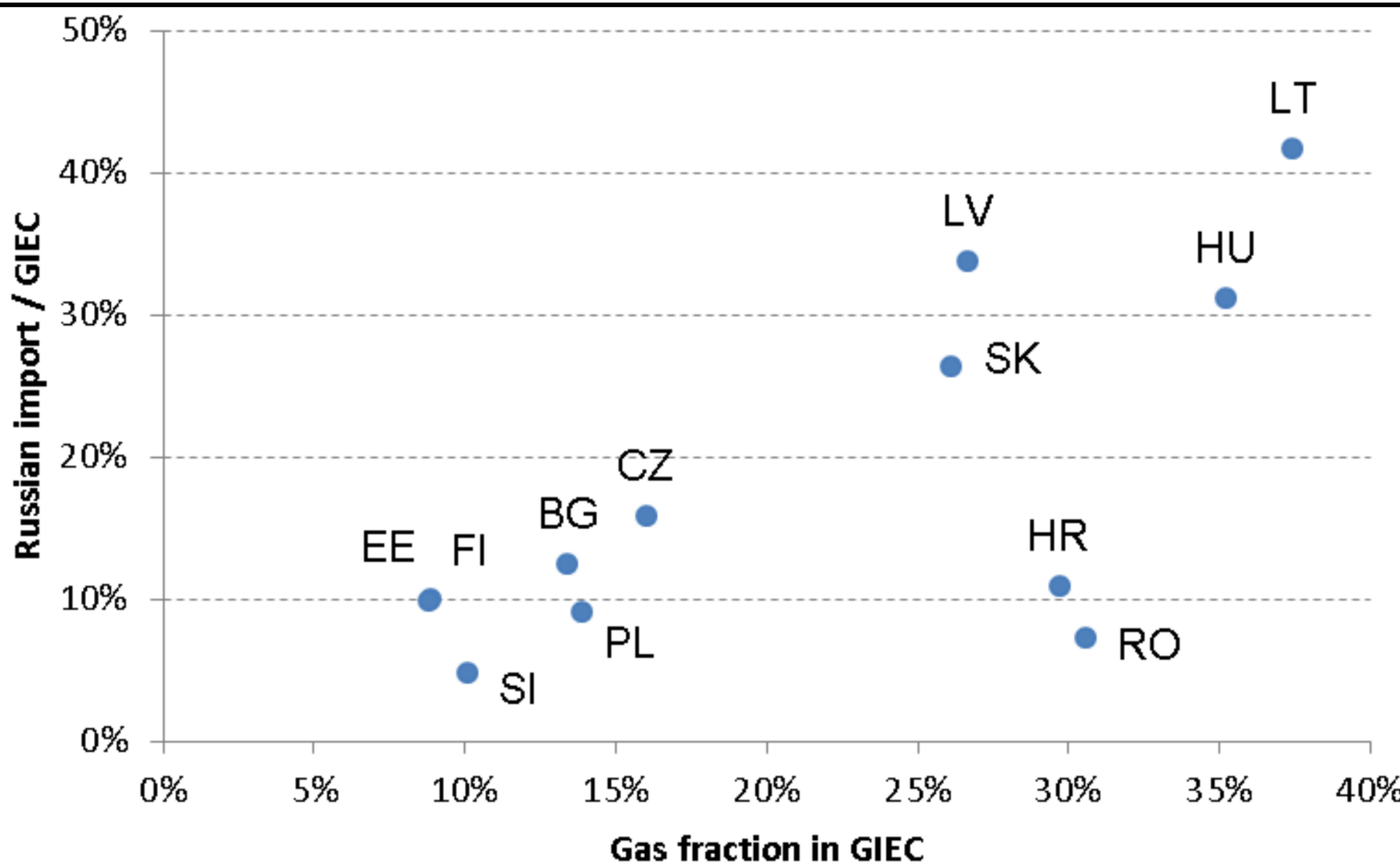
- Example: natural gas (2013 data)




- High dependency in Central-Eastern and Eastern Europe, but low volumes
- Medium dependency in Germany, Italy and France, but significant volumes
- Zero dependency in Spain, Portugal, UK,…

Sources: BP (2014), EIA (2014)

# Share in GIEC (gross internal energy consumption)




Note: 2012 data
Source: ECN (2014)

# Gas is high on EU agenda because…

- Delivery (transit) risk
  - 2009 gas dispute between Russia and Ukraine resulted in severe disruptions of Russian gas deliveries to 12 EU member states, incl. DE and IT

- “Opera pricing”:
  - Member states located closer to Russia pay a higher price than member states further west (approx. 10-15%)

- Storing gas is relatively expensive (compared to oil or coal)

- Gas markets are regional (EU: 81% piped gas vs. 19% LNG), whereas oil & coal markets are global

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# What happened after 2009?

- Intention to diversify from Russia through Southern corridor, “Nabucco” pipeline to import gas from Caspian Sea


- Status quo:
  - Cancellation of Nabucco(-West)
  - Alternative project: TAP / TANAP (10 bcm)

# What happened after 2009? (cont'd)

- Transit risks partly removed through new import pipeline "Nord Stream" (planned before 2009)

- Status quo:
  – Solves the problem for DE
  – Transit risks for SK, CZ, HU, AT, IT and BG persist


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# What happened after 2009? (cont'd)

- 6 new LNG terminals built between 2009 and 2013 (55 bcm capacity)
- Status quo:
  - Low utilisation of LNG regasification plants (~20% in 2013)
- Other projects
  - Medgaz (8 bcm, ES/Algeria), inaugurated 2011
  - North-South gas corridor (PL/HR), not yet finalised
- Unresolved issues:
  - Opera pricing persists
  - Fragmentation, “energy islands” (Baltic states, Iberian peninsula)

# EU energy security strategy (2014)

- Reaction to 2014 crisis, initiative: former Polish Prime Minister Tusk

- Contents (selection)
  - Immediate actions to overcome a (potential) major disruption during the winter 2014/2015 *[e.g. through reverse flows]*
  - Solidarity mechanisms
  - Moderate energy demand
  - Complete integrated market
  - Increase domestic energy production *[e.g. through renewables and shale gas]*
  - Diversify external supplies
  - (..)

⬄ mostly repackaging existing policies / objectives

# New European Commission: Energy Union

- Juncker appointed a dedicated Vice-President for Energy Union, Maroš Šefčovič, however: no Directorate

- Attempt to link the climate change and internal market agendas to energy security

- Why an Energy Union?
  - Assumption in 2007/2008:
    - Climate and Energy Package would result in an integrated market driven by Emission Trading System
    - Integrated market would be more resilient and secure
  - Reality in 2014/2015:
    - National choices, national speeds for deploying renewables, national support instruments, …
    - Fragmented markets

# Energy Union – an empty concept?

- **Risks**
  - Concept remains empty, slow progress
  - Inconsistent
  - **Anti-Russia platform**
  - Energy Union as a synonym for member states asking the EU to pay for projects they should have funded themselves

- **Success factors**
  - Do not repackage existing policies
  - Set priorities
  - Address trade-offs

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# Reducing fragmentation

- EU gas markets are fragmented,
  energy islands persist (Baltic states, Iberian peninsula)

- Fragmented markets are less efficient
  (e.g. usage of existing LNG regasification terminals)
- Fragmented systems are less resilient
- Fragmentation makes it harder to attract new foreign suppliers, especially the case for small markets like in Eastern Europe

- Current EU list of “projects of common interest” is long,
  Connecting Europe Facility has a budget of €6 billion for energy

- Focus on less projects, with stronger EU support,
  leave the rest to member states

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# Joint purchasing

- Joint purchasing:
  - Aggregate demand of several buyers
  - Mechanism to increase bargaining power of small buyers (and match bargaining power of sellers with a high market share)
  - Known from other sectors, e.g. telecoms: “BuyIn” – procurement joint venture between Deutsche Telekom and Orange

- Proposed by former Polish Prime Minister Donald Tusk, confirmed to be on EU agenda by Commission-VP Šefčovič

- Immediately raises question of conformity with competition law, hesitant reaction from traditional gas suppliers

- Public agency or private company?

# Japanese example

- TEPCO and CEPCO agreed to establish a joint venture to procure fossil fuels, primarily LNG (Oct 2014)
  - Operational by Mar 2015
  - Projected volumes: 54 bcm (~2012 gas imports of Italy)
  - Pavilion Energy (Singapore) intends to join

- Motivation: mitigate high gas import costs
  - Japanese import price: $17.8 / mm Btu *
  - EU import price: $9.8 / mm Btu *

- Private company, not a publicly governed agency

- Can Europe learn from this example?

* Oct 2014, source: World Bank (2014)

# Joint purchasing:
# Where to begin?

- Central and Eastern EU member states incl. Baltics and Finland, imports from Russia: 52 bcm (cp. to Japanese 54 bcm)
  - Trade value: €16.4 billion per year
  - 10% price decrease ⇔ savings of €1.6 billion per year
  - Sufficient amount, sufficient motivation

- Yet: existing long-term contracts with Gazprom to be honoured, effectively blocking transmission capacity
- Without renegotiating:
  - 12 bcm freed up by 2018
  - additional 17 bcm by 2025

- Opportunities for renegotiation?

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# Cancellation of South Stream

- Gazprom announced the cancellation of South Stream in Dec ’14 (63 bcm to Bulgaria)


- Replacement project: “Turkish Stream” (same capacity, delivered to Turkey, destined for EU or “potential new consumers”)
- Worth evaluating from EU perspective

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# Regional initiatives as a driver to develop cross-border infrastructure (power sector)

- Power sector plays important role in decarbonisation
  - High potential to decarbonise through renewables
  - Mostly intermittent sources (wind, solar) raising the question of supply security

- Energy security in power sector
  - Financing back-up capacity
  - Reducing the need for back-up capacity

- Important driver to reduce back-up capacity level: cross-border interconnection
  - Variability of renewables decreases with increasing geographical dispersion

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# Regional initiatives

- EU 2030 climate & energy framework
  - No more national targets for renewables
  - EU-wide target (27%)
- Represents an opportunity to promote cross-border infrastructure at regional level (i.e. between two or more member states)
- EU "governance" package, known so far:
  - Member states communicate energy plans to Commission
  - Energy plans are subject to Commission approval
- Regional targets could be incentivised if linked with cross-border infrastructure (e.g. through supercredits, access to finance, …)

# Thank you for your attention

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