External and internal drivers of EU Energy Policy

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„Seriously about Paks“

Workshop Energiaklub/Friedrich-Ebert-Stiftung Budapest

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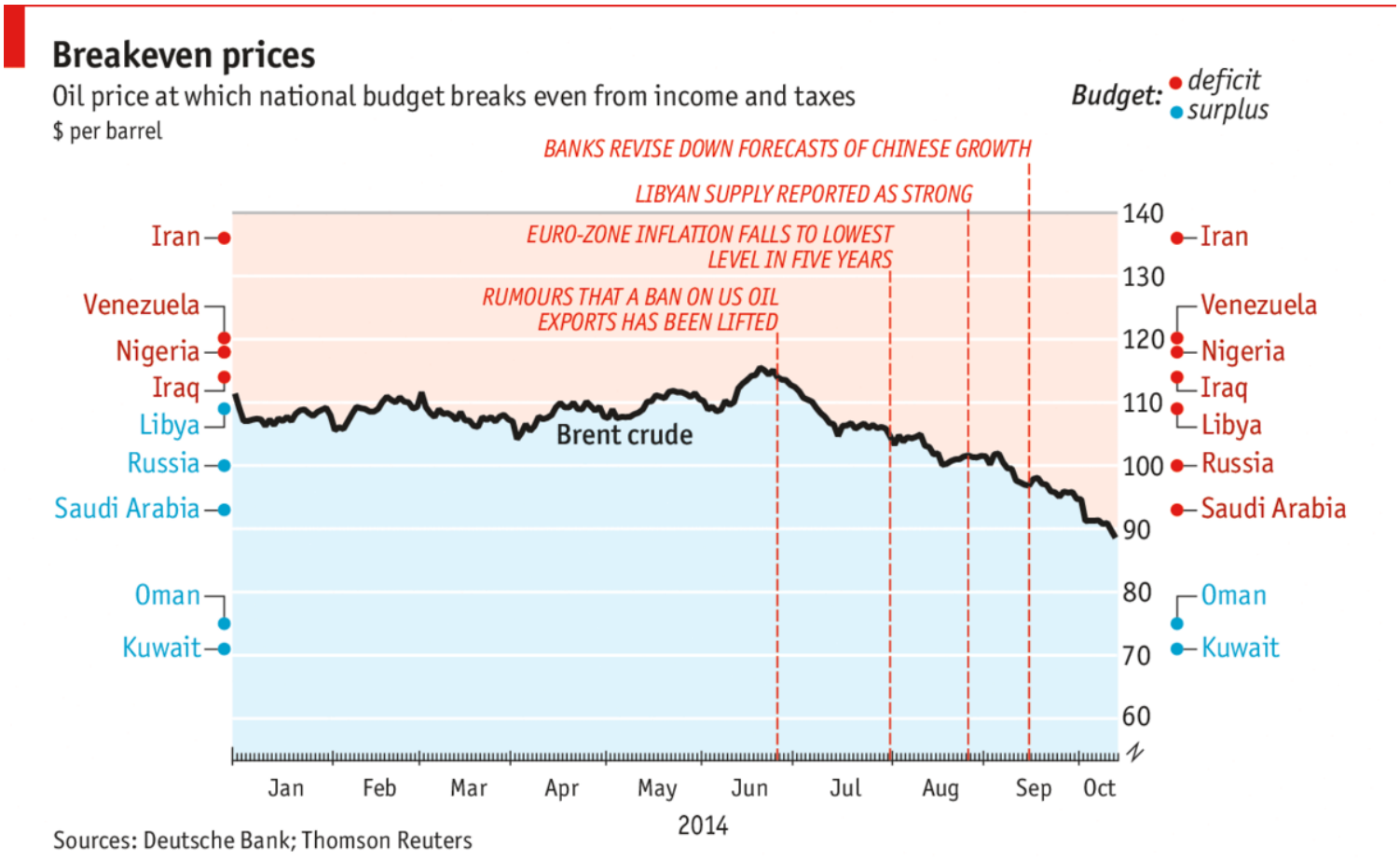
The global oil markets are the topic in today‘s energy debate



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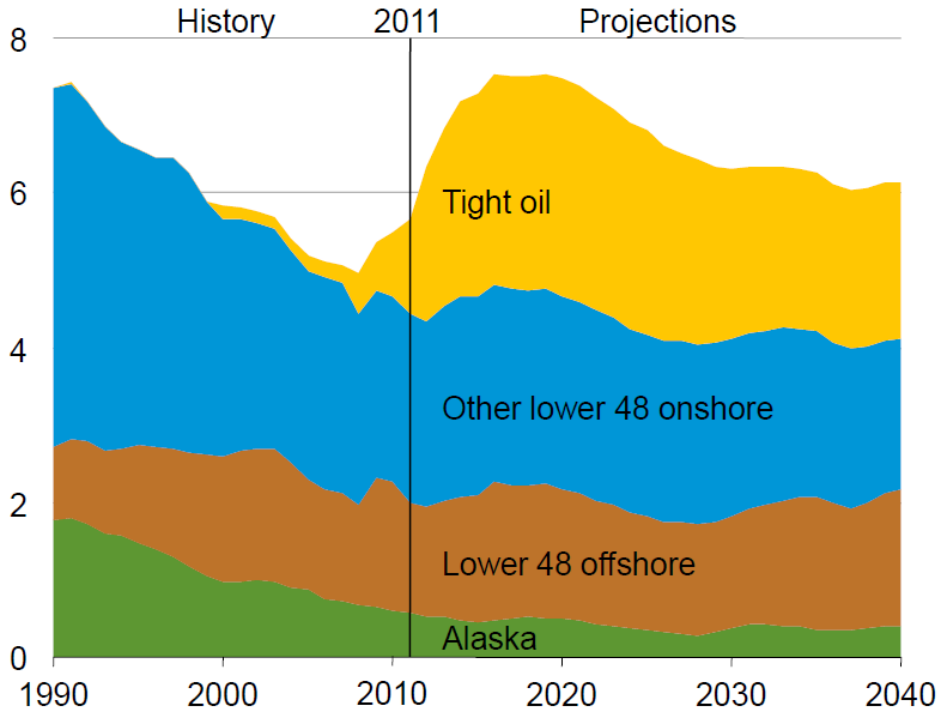
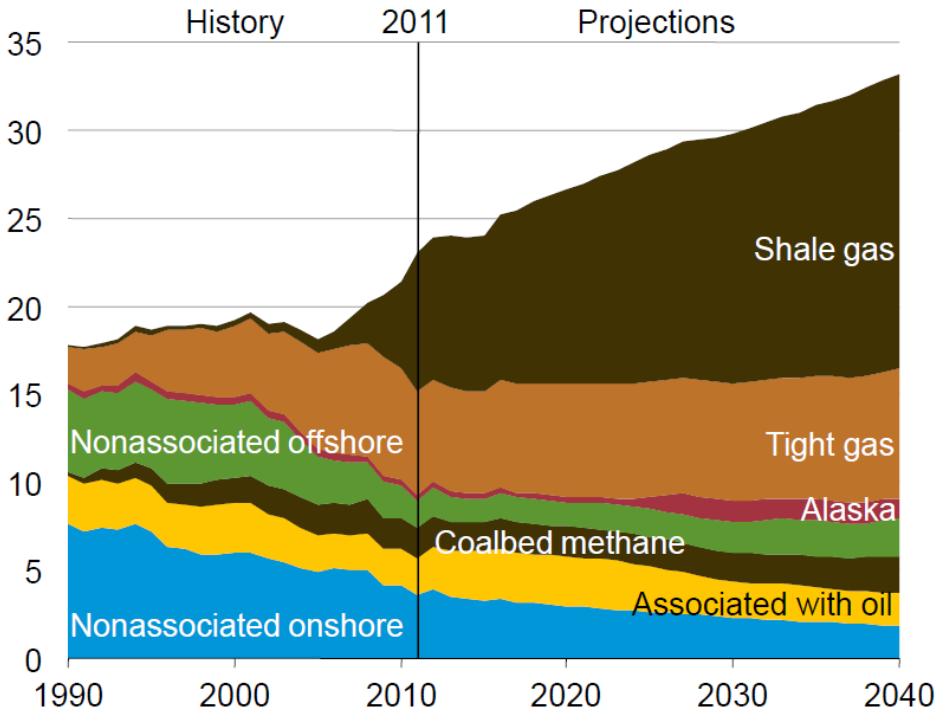
A fundamental change in U.S. oil and gas production has implications for world energy markets



U.S. oil production



U.S. natural gas production

Source: EIA 2013

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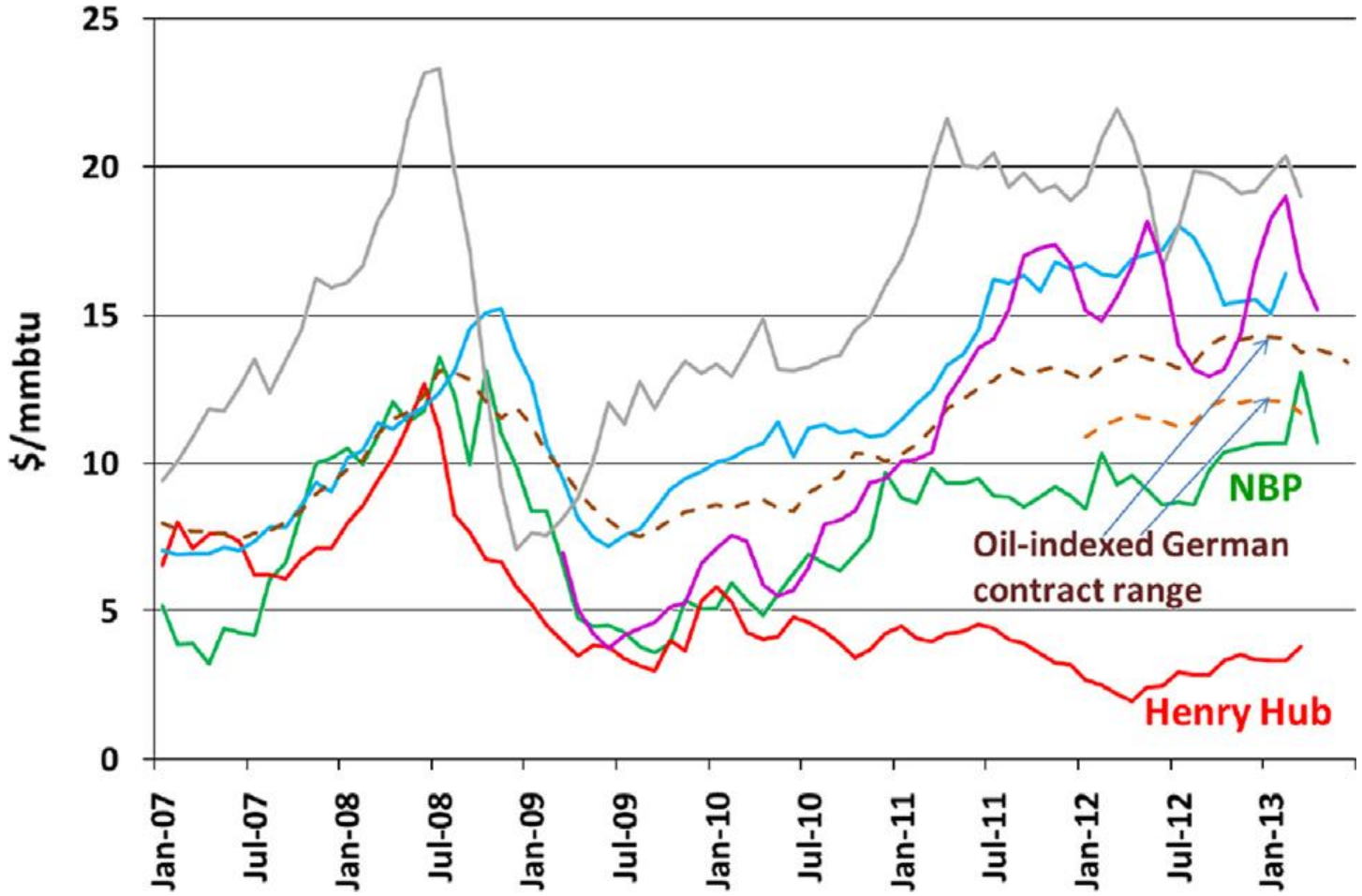
The price spread of regional gas markets is growing



Source: Stern 2013

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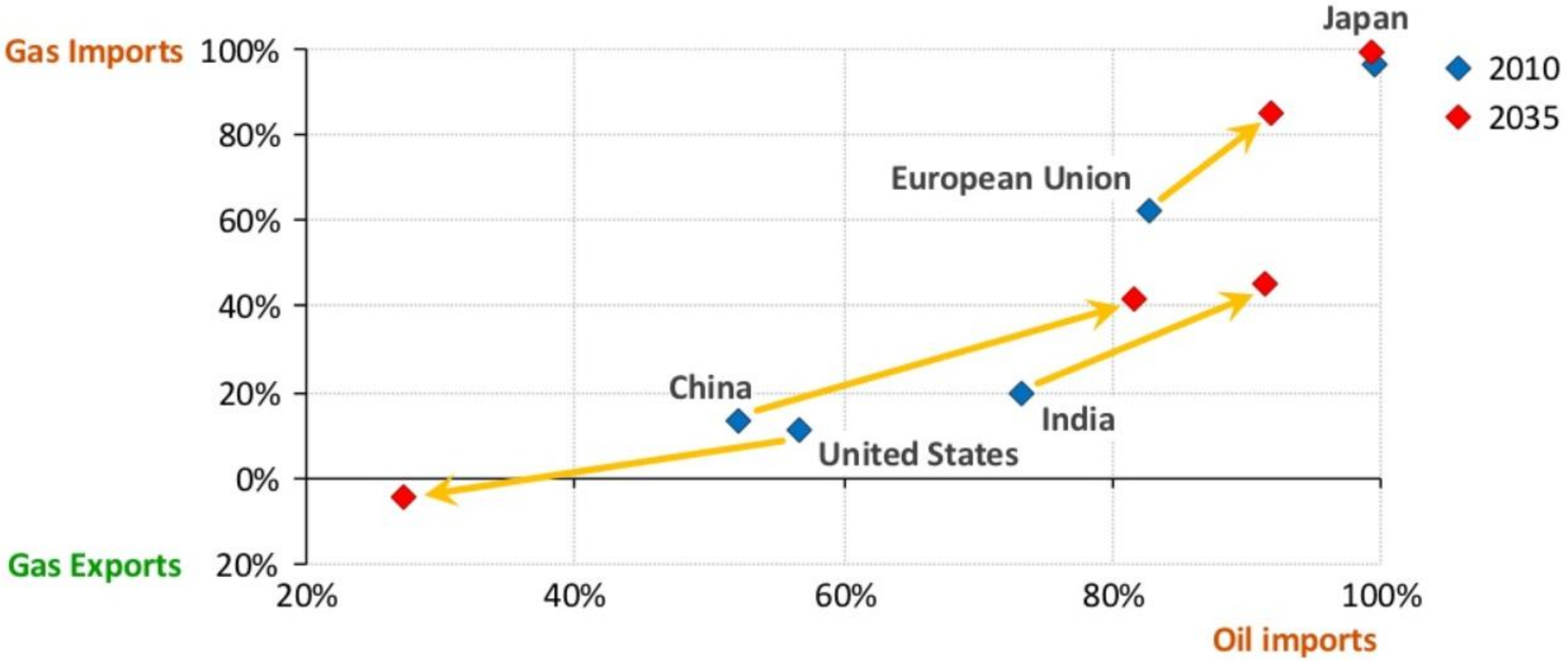
Share of oil and gas imports: A challenge for Europe



Quelle: IEA 2012

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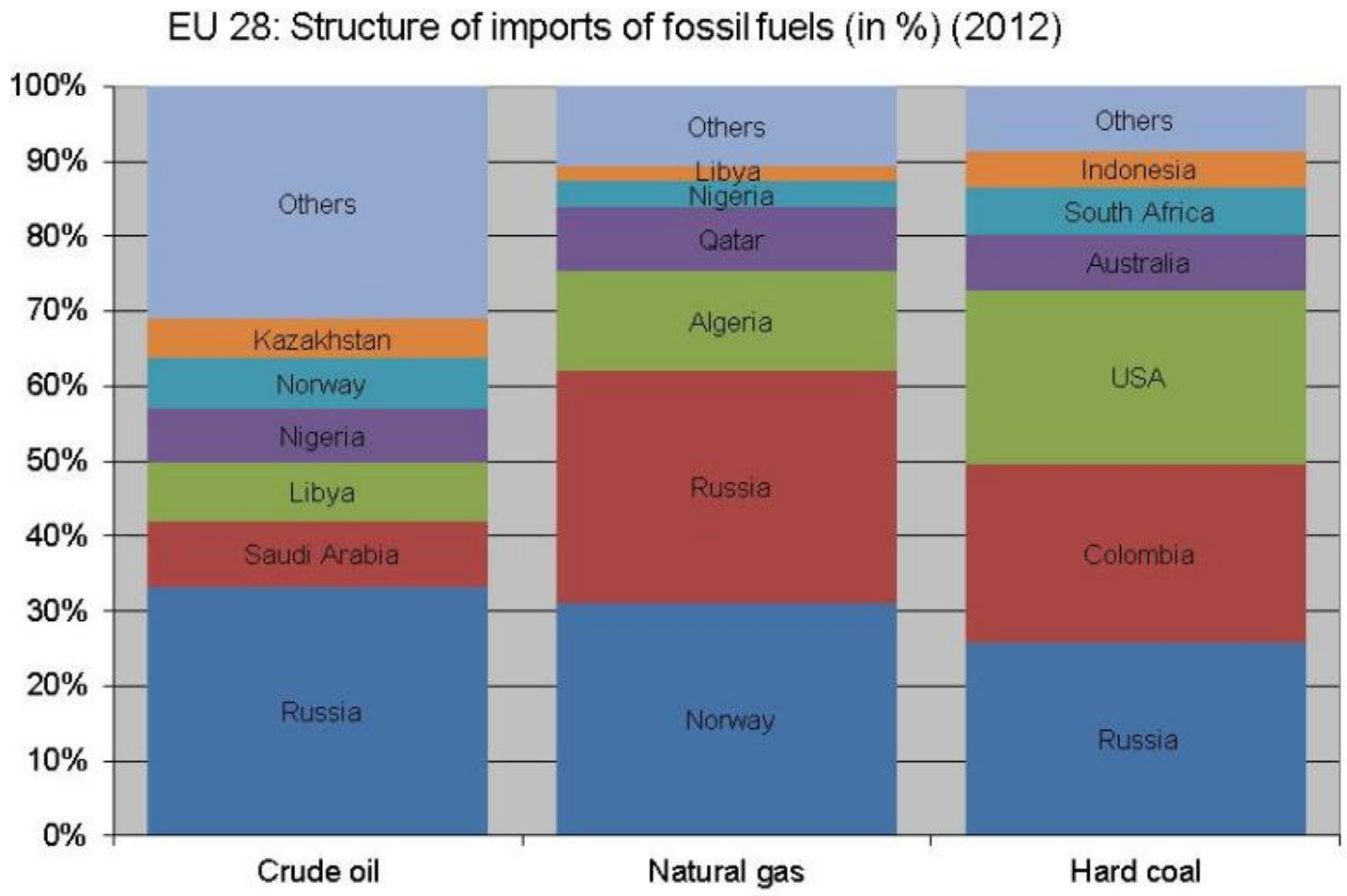
Fossil energy imports by country of origin



Source: Eurostat

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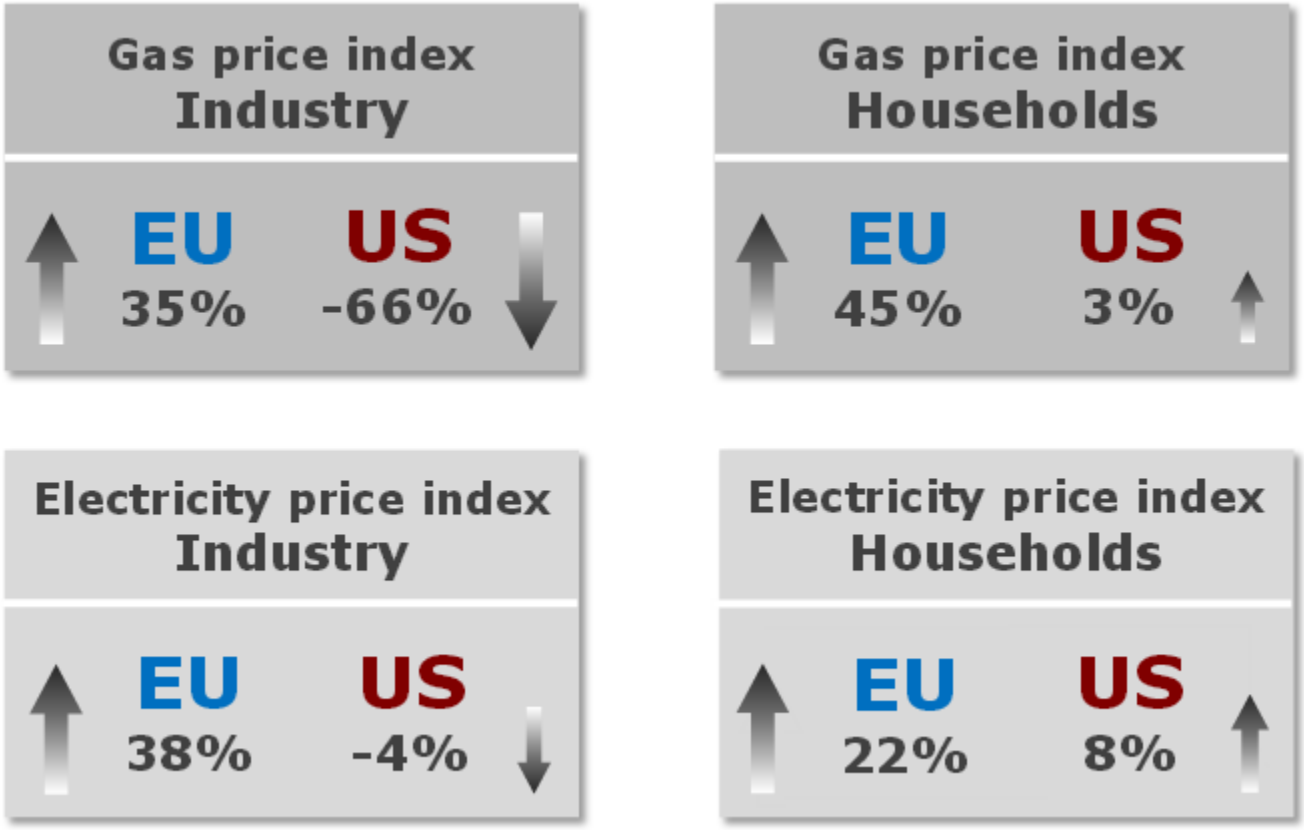
Comparison of EU-U.S. gas and electricity prices 2005-2012: Competitiveness as new topic in Europe



Quelle: IEA 2013

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The global context

- Low oil prices and US/EU-sanctions pose a real problem for Russian state budget and investment in new exploration
- Low oil prices also lead to less investments in „market-driven“ efficiency measures, eg. in transportation
- European gas market remains largely regional and is therefore dominated by Russian, Norwegian and Algerian imports
- LNG faces an economically hard time – capacity is largely not used because of high prices compared to pipeline gas

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The Russian-Ukrainian conflict and its energy impacts

- Trilateral talks (EU, Russia, Ukraine): No deal likely before elections in Ukraine (26th October 2014)
- Unresolved questions:
  - Two court cases in Stockholm: Paying of debts and charging too much
  - Price for gas deliveries to Ukraine
- Energy crisis inside the Ukraine highly likely
  - 70% drop in coal production
  - No gas deliveries
  - Oil too expensive for heating
  - More electricity consumption due to private electricity heating

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The EU‘s role in energy and climate policy

Three important pillars:

- Environmental legislation (20-20-20-Strategy, EU Emissions Trading Scheme, Efficiency, Renewable Energies)

- Internal electricity and gas market / competition policy

- Infrastructure Policy

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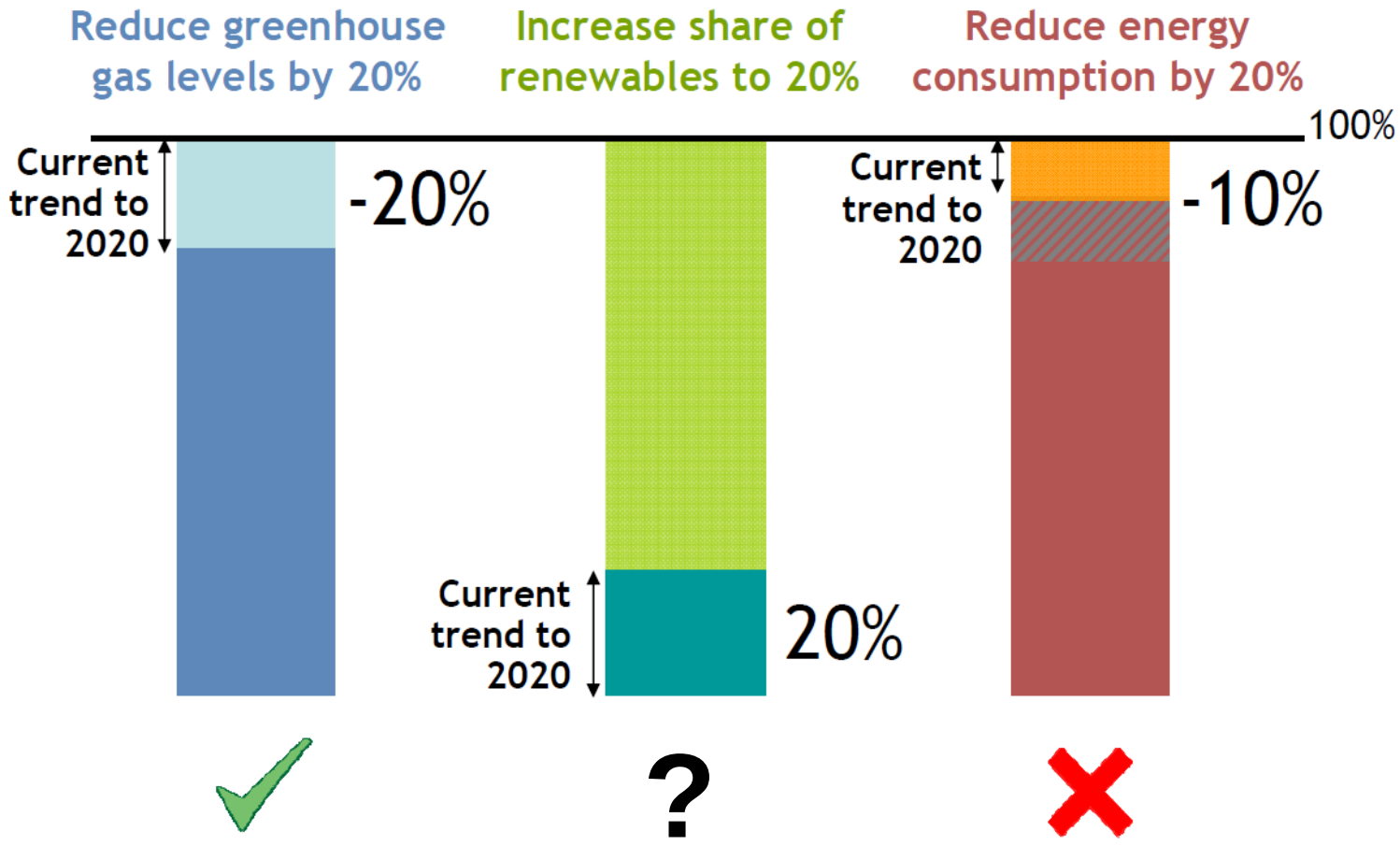
The EU‘s 20-20-20 targets: Mixed results on the „implementation score board“



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The EU Emissions Trading Scheme is not giving price signals anymore

Why are prices falling so dramatically?
- Economic crisis
- Oversupply of certificates from offsets (CDM/JI)
- Oversupply during first and second trading period or ambition too low in climate policies

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The consequence from low ETS-price on electricity production is mainly: less gas consumption

	2008	2009	2010	2011	2012	2013
Italy	33.4	28.7	29.8	27.5	24.2	20.1
UK	24.8	23.1	25.3	19.5	13.2	13.1
Spain	16.0	13.7	11.6	9.4	7.2	4.8
Belgium	n.a.	n.a.	n.a.	7.1	8.4	7.4
France	n.a.	n.a.	2.2	2.5	1.5	1.2

Source: Platts-Bentek

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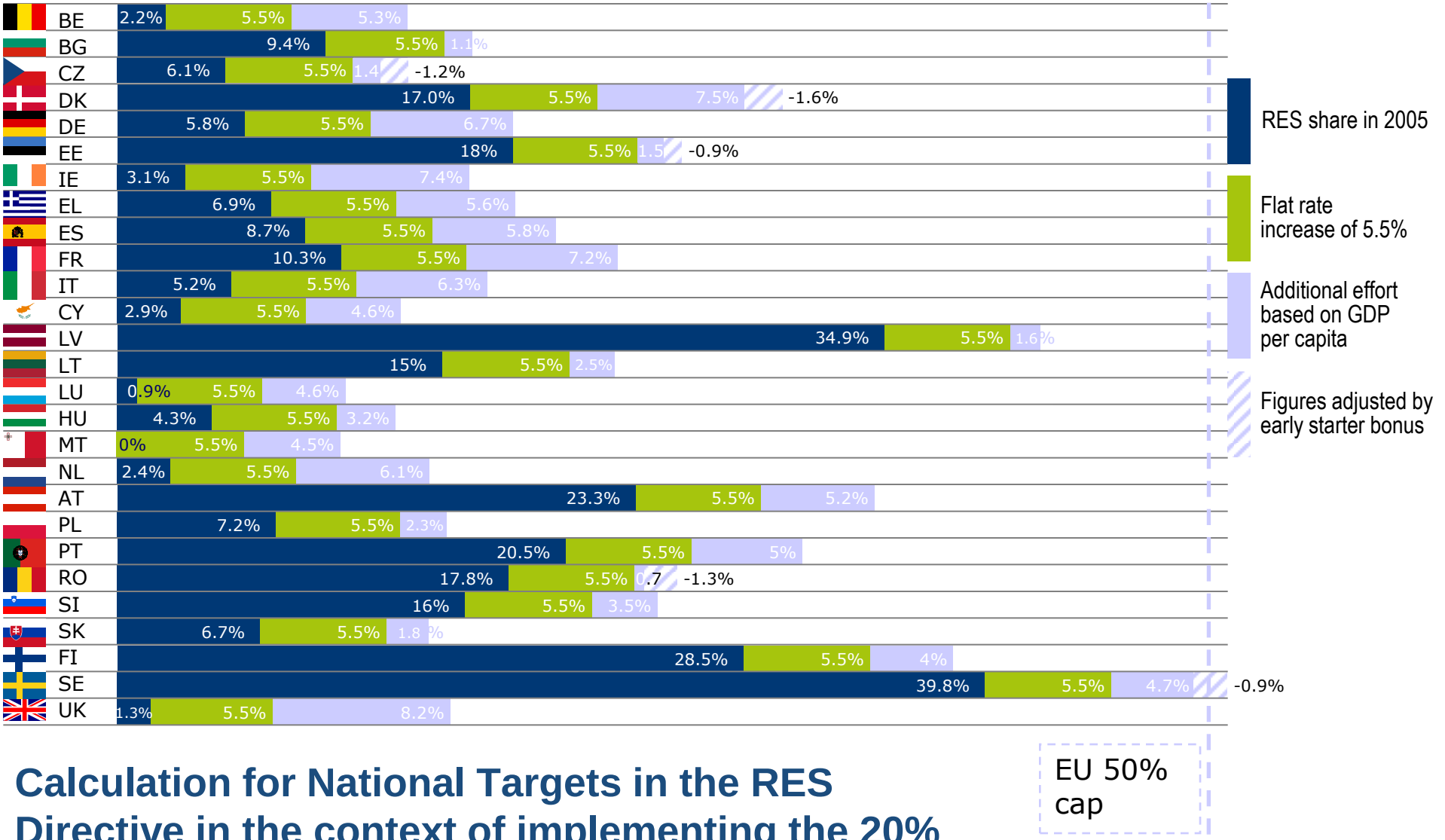

Calculation for National Targets in the RES Directive in the context of implementing the 20% RES target

Source: EREC

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The EU-2030-Framework

- Discussion will be held in European Council 23./24. October 2014
- Commission proposal:
  - GHG-Target of 40%
    - No real positive influence on fuel switch coal-gas
  - Renewables-Target of 27%
    - Not distributed on national level
    - Politically disputed
  - Energy Efficiency-Target of 30%
    - Binding character unclear
    - Politically disputed

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Internal market for Electricity and Gas

- Integrated gas market has improved energy security, but:
  - LNG will have a hard time competing with pipeline gas
  - Competition issues regarding pipeline projects
    - South Stream
    - OPAL
  - Question: Is the „liberalized gas market model“ delivering on infrastructure issues?
- Integrated electricity market has lead to more „market-based“ pricing via market coupling, but:
  - More and more national interventions in the market
    - RES support schemes
    - Capacity markets
  - Competition policy plays a major role: Hinkley Point C

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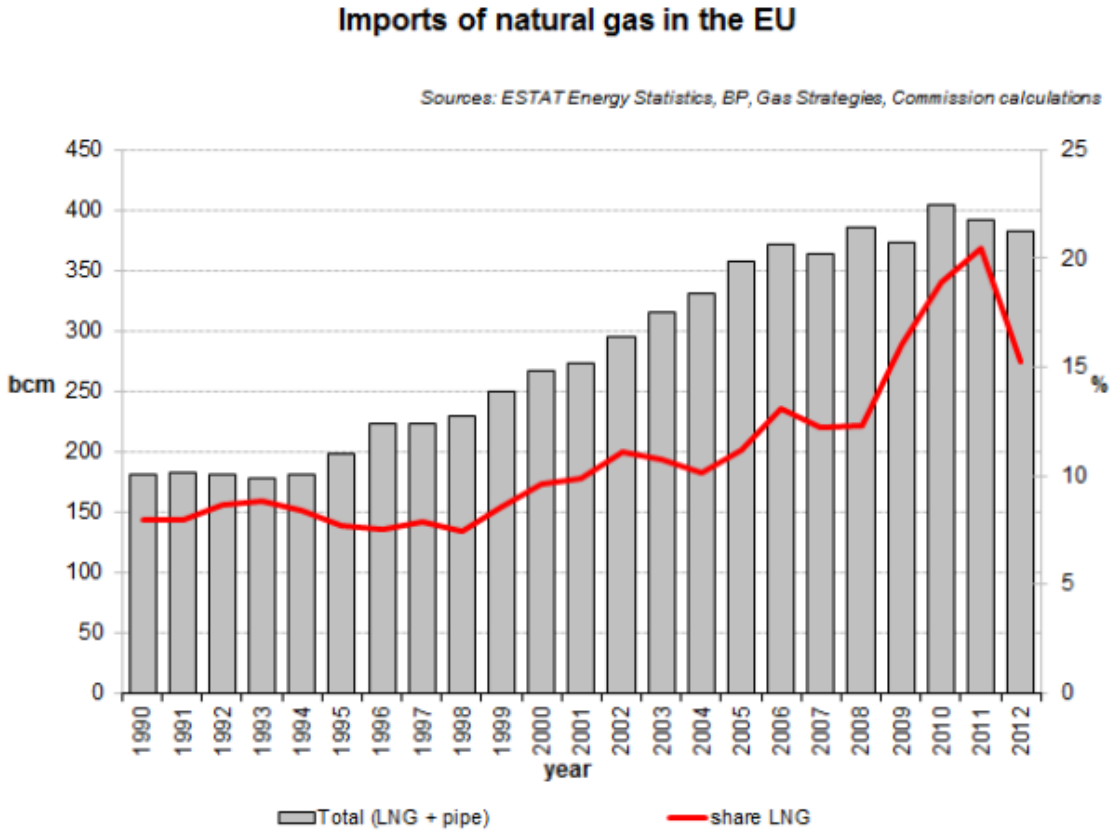
Natural Gas: The share of LNG is decreasing due to price disadvantages



Source: Eurostat (preliminary data 2012)

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Nuclear: The Hinkley Point C case

- Construction of two reactors at Hinkley Point in the UK
- Full costs of 31.2 Billion Euros (construction, public guarantees, loans)
- „Contracts for Difference“: ca. 109 Euro per MW over 35 years
- EU Commission has allowed this state aid for reasons because of market failure and energy security needs

But:

- For the first time, the true costs of nuclear in the electricity market become obvious higher then, for example, onshore wind in Germany‘s feed-in tariff system

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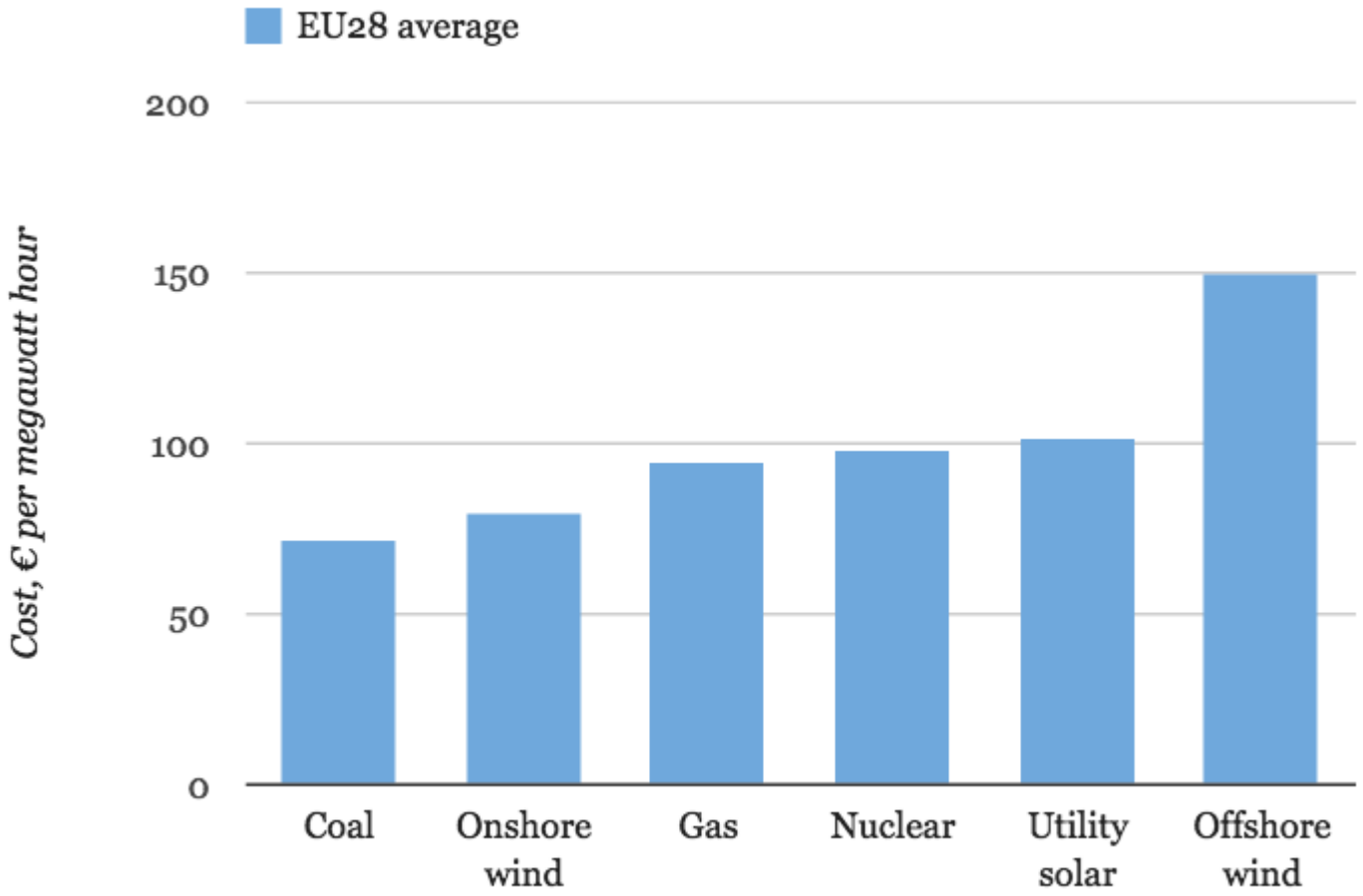
Electricity market: „Real“ costs of electricity generation



Source: Carbon Brief/Ecofys 2014

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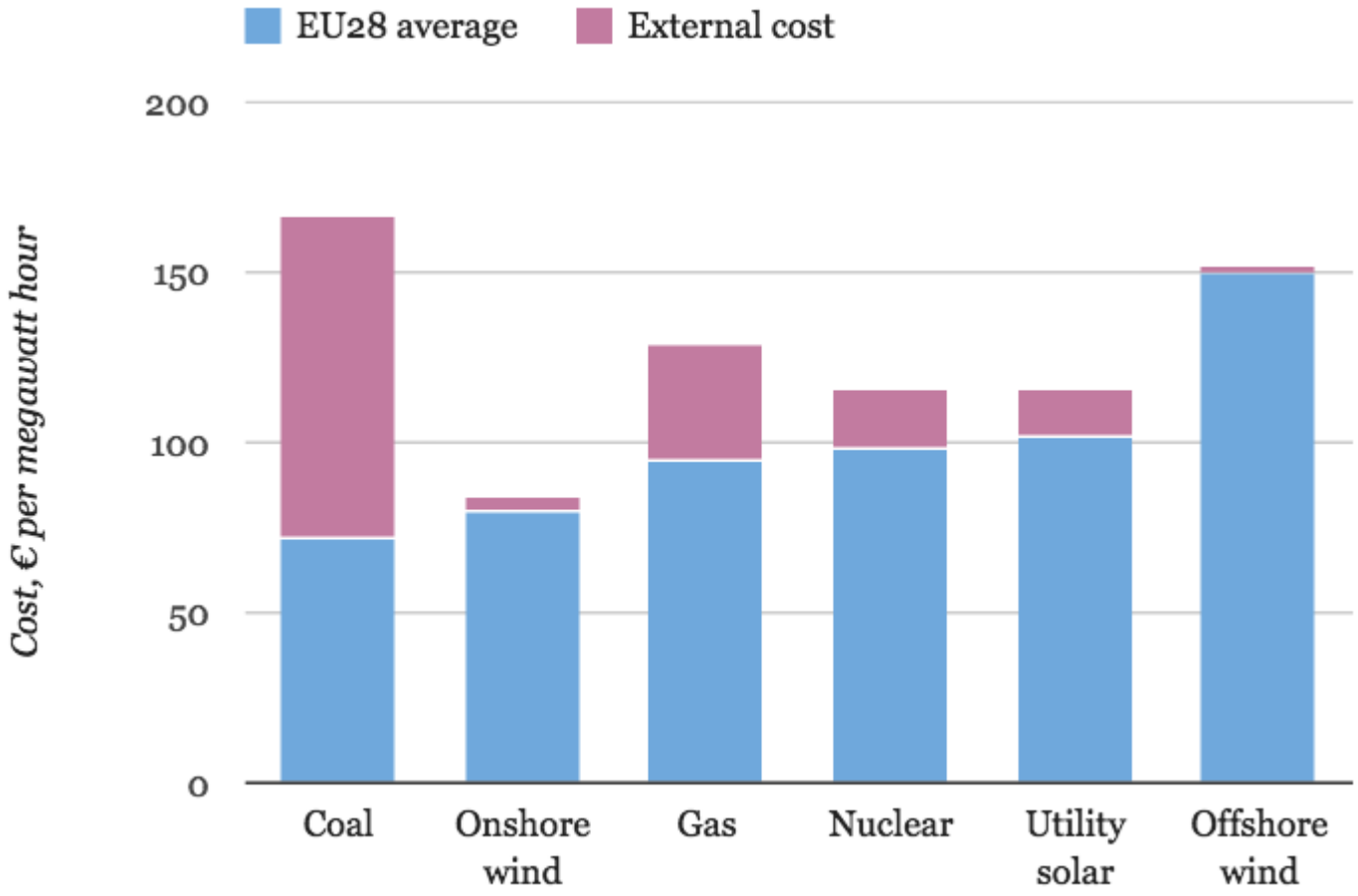
Electricity markets: Costs including externalities



Source: Carbon Brief/Ecofys 2014

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Infrastructure policy

- Investments in the context of the European Energy Program for Recovery (EEPR) have made 4 Billion Euros available
  - Investments in reverse flow
- Gas Security Directive
  - Obligation for Member States to invest in reverse flow
  - Emergency response measures in case of gas supply disruption

  - Infrastrucutre investments in the internal market have created more resilience in the context of gas supply disruptions, eg. from Ukraine

- New Connecting Europe Facility (6 Billion Euros) will further improve internal infrastructure in the time 2014-2020

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Conclusions

- The oil sector is more problematic than gas right now
- The EU has improved energy security in the gas sector via internal market and infrastructure investments
- The low ambition of climate policy will favour coal before gas in the future
- The role of energy efficiency and RES will mainly be decided on the national level
- The costs of nuclear (see Hinkley Point C) should make it unattractive on European electricity market, unless governments are willing to spend a lot of money on it

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Thank you for your attention!

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