E.ON‘s view on the LNG market

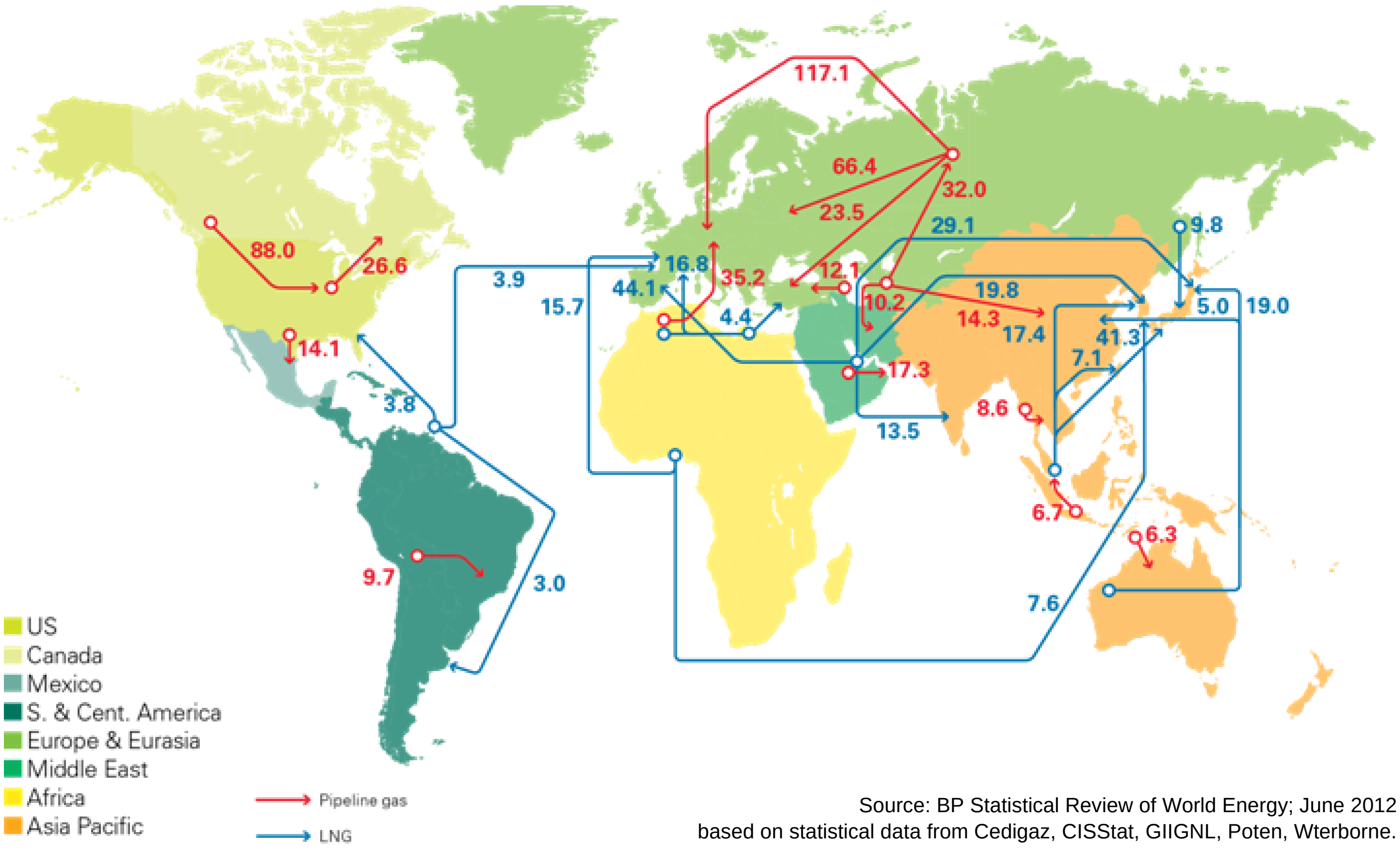
Dr. Derk J. Swider, Head of Gas Market Analysis
EBC Energy Committee Meeting, Amsterdam,May 31st, 2013

Hot topics in LNG

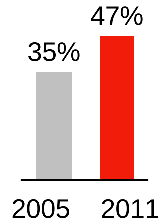
- Asia main driver of global LNG demand – continuous growth story?
- New LNG demand in transportation emerging – supplement or more?
- High growth of global liquefaction capacity – oversupply emerging?
- LNG diversifies the Europe supply portfolio – decreasing prices?

Natural gas increasingly seen as a global commodity

Major gas trade flows 2011 [bcm]



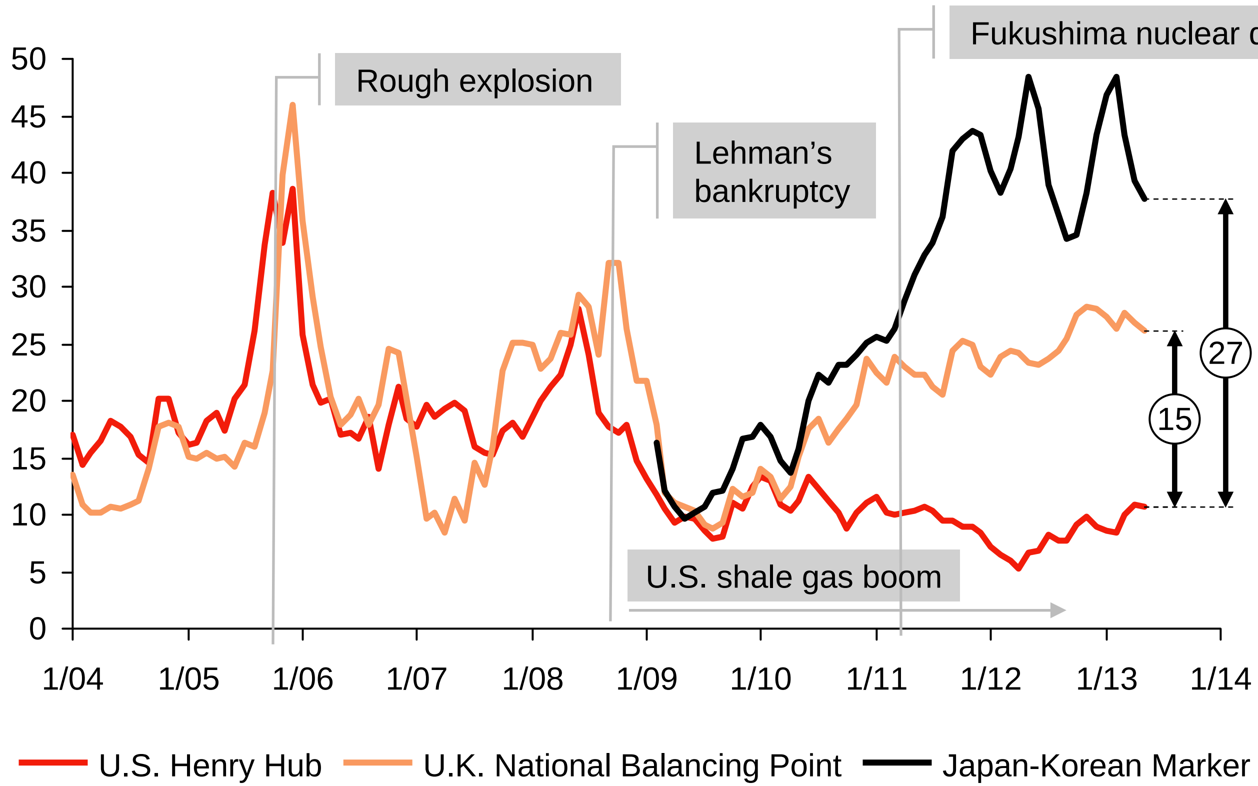
LNG share of global gas trade flows:



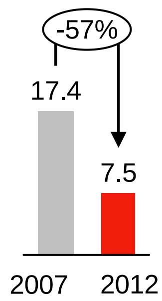
Source: BP Statistical Review of World Energy; June 2012
based on statistical data from Cedigaz, CISStat, GIIGNL, Poten, Wterborne.

Divergence of global gas prices

Historic development of spot gas prices [€/MWh, nominal]



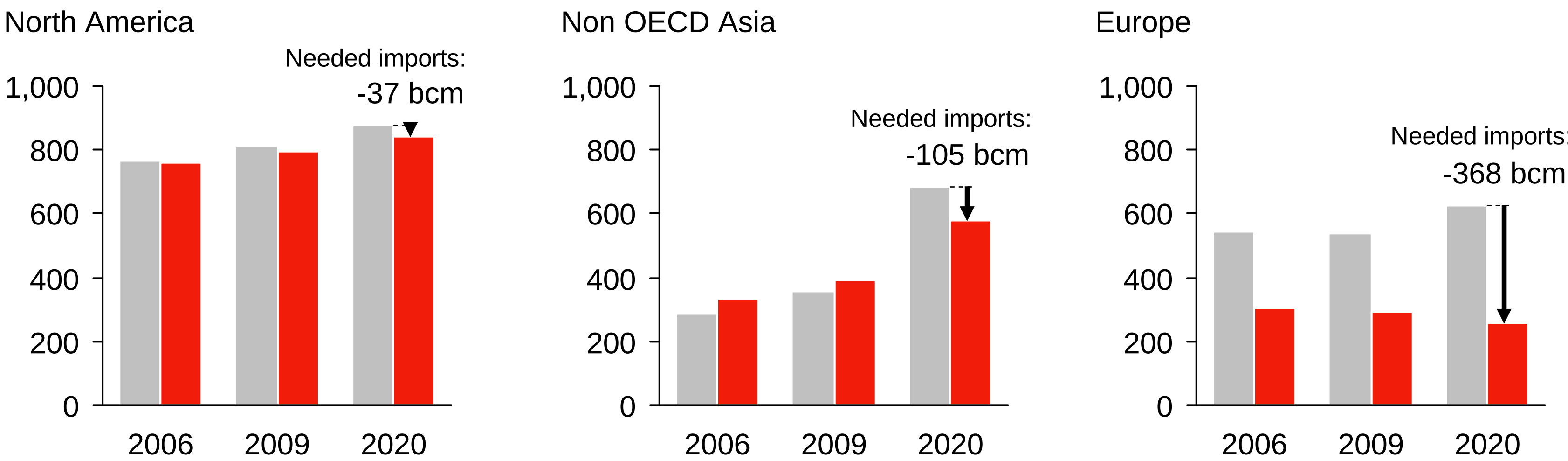
Annual average U.S. spot gas price:



Source: Platts

Regional dispersion of gas demand and supply

Gas demand and supply [bcm] Demand Supply



- Shale gas development leads to U.S. gas import independence
- Even (limited) LNG exports likely

- Non OECD Asia with significant gas demand growth in the next years
- Diversified supply options available

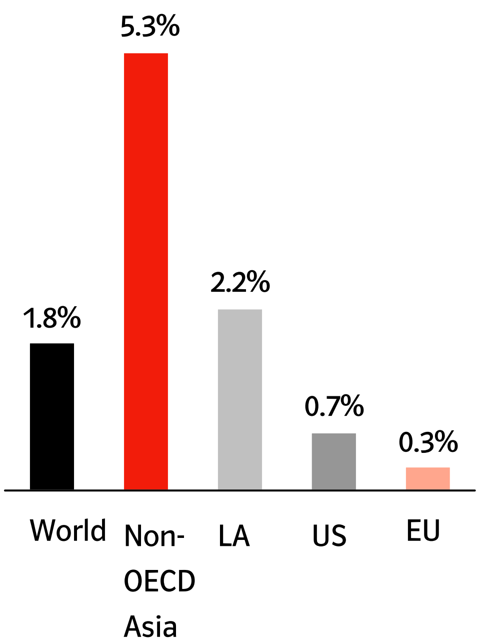
- European indigenous gas supply with fast decrease
- Increasing competition for global supply options

Source: IEA WEO 2008 Reference Scenario and 2011 New Policies Scenario

Global gas demand driven by development in Asia

Gas demand growth rate comparison [CAGR 2010-20]

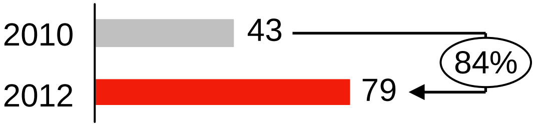
Unlimited demand growth in Asia?



Example: Japan …

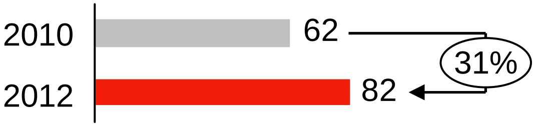
… relies on LNG for its energy needs …

GtP demand [bcm]



… pays a price for that dependency …

”LNG bill“ [bn US$]



… and as a result has to look for new pastures.

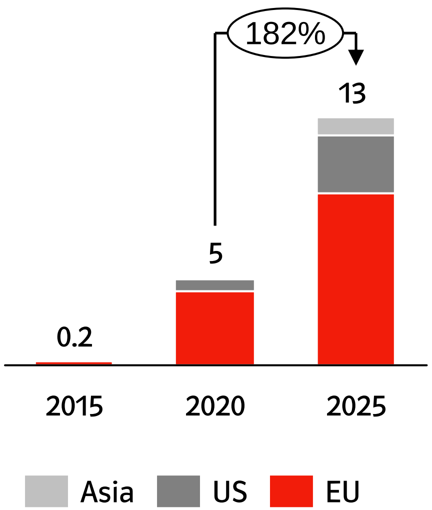
- Diversification of gas supply portfolio (incl. US supply)
- Substantial support for RES-E to reduce import dependency

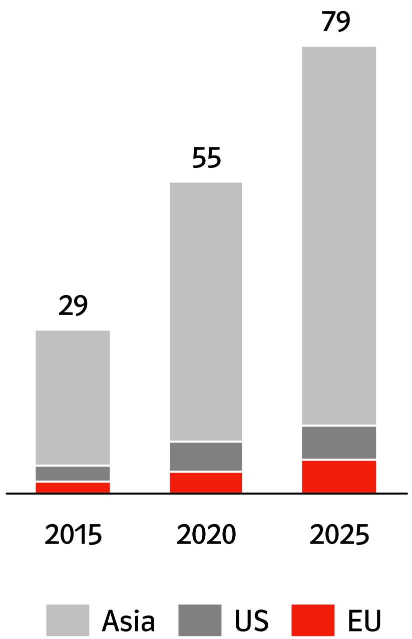
Source: IEA, PanAsian Enterprises

Potential gas demand expansion in transportation

LNG bunker fuel demand (left) and NGV demand (right) by region [bcm]

Other estimates for 2025:
Lloyds: 33 bcm
GDF Suez: 42 bcm



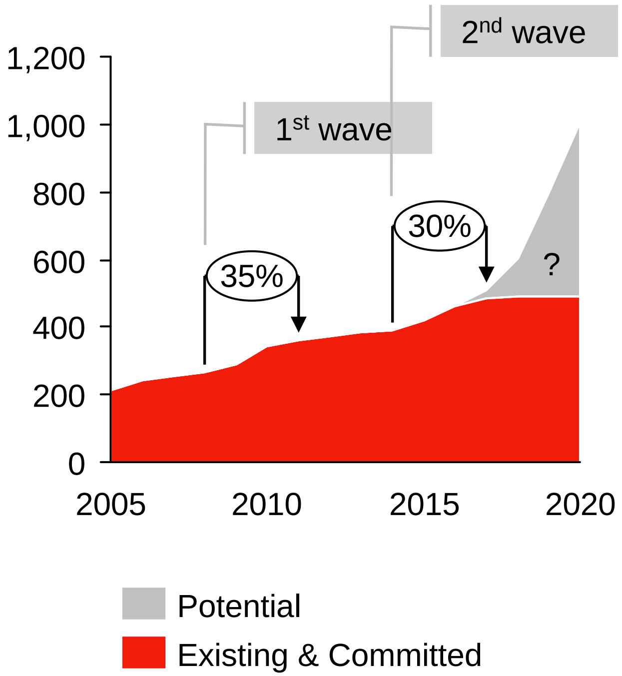


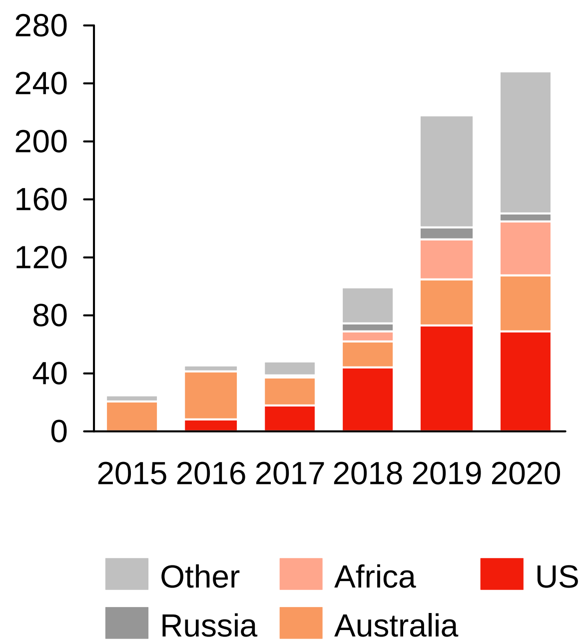
- Combined influence of increasing oil prices and environmental concerns
- EC recently proposed for LNG refueling stations to be installed in 139 ports
- LNG has potential to constitute more than 15 % of bunker fuel demand

Source: Wood Mackenzie, IEA

Expectation of second wave of liquefaction capacity

Global liquefaction capacity (left) and annual capacity additions (right) [bcm]





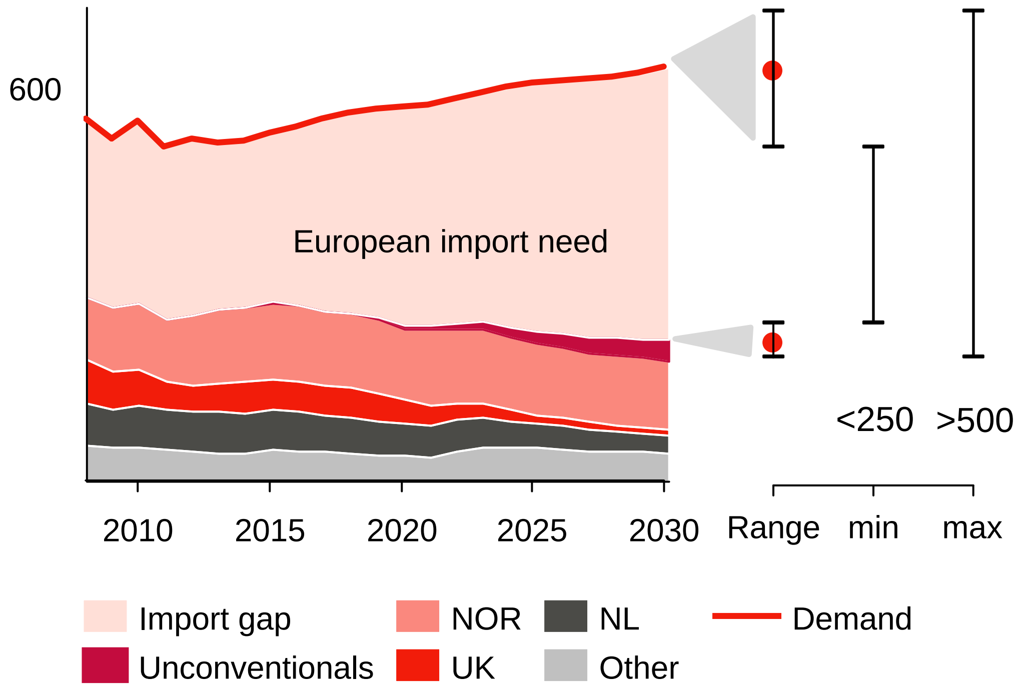
Based on the shale gas boom the US becomes an LNG exporter

Sabine Pass and recently Freeport LNG received non-FTA export licenses

Source: IHS CERA

Growing import needs for European gas markets

Gas demand and supply [bcm]



- Indigenous gas supply from NO, UK, and NL decreases by 40% from 2008 to 2030
- European import gap expected to be in a range of 50-75% in 2030 (today 50%)
- Diverse supply options (esp. Russia, North Africa, LNG and 4th corridor) increase market liquidity and competition

→ **There is uncertainty regarding the size of the European import gap**

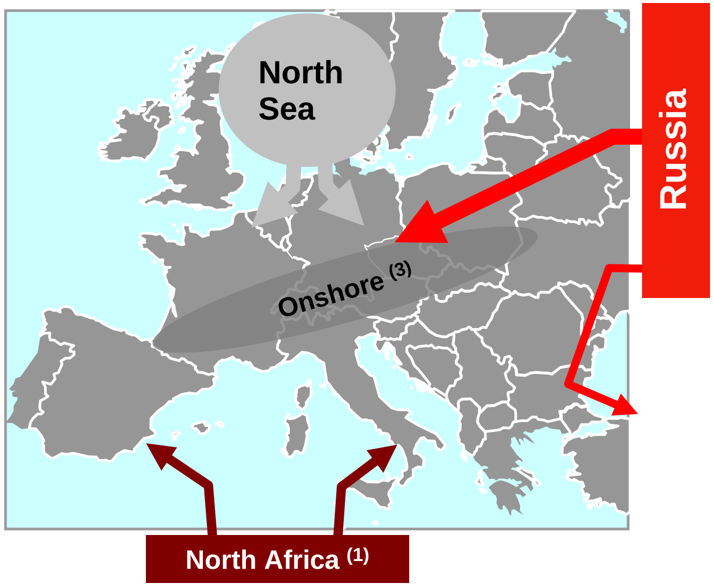
LNG will play an increasing role in Europe

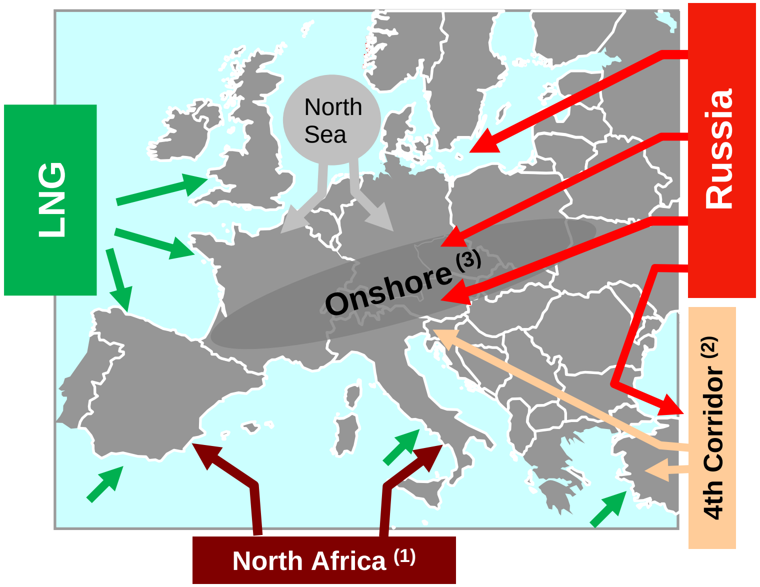
Traditional supply sources

- LTC's Russia / North Africa
- North Sea production

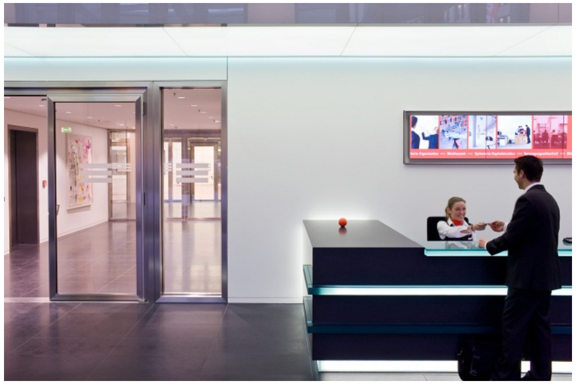
Future supply options

- LTC's Russia / North Africa
- LNG imports
- 4th corridor supply





1) Piped supply only 2) Azerbaijan, Iraq, Iran, Turkmenistan 3) Includes unconventional supply from 2015


Thank you very much for your attention!

Dr. Derk J. Swider
Head of Gas Market Analysis

E.ON SE
E.ON-Platz 1
40479 Düsseldorf
T +49 (0) 211 - 4579 4679
Email: derk.swider@eon.com

www.eon.com

Diese Präsentation enthält möglicherweise bestimmte in die Zukunft gerichtete Aussagen, die auf den gegen-wärtigen Annahmen und Prognosen der Unternehmensleitung des E.ON-Konzerns und anderen derzeit verfüg-baren Informationen beruhen. Verschiedene bekannte wie auch unbekannte Risiken und Ungewissheiten sowie sonstige Faktoren können dazu führen, dass die tatsächlichen Ergebnisse, die Finanzlage, die Ent-wicklung oder die Leistung der Gesellschaft wesentlich von den hier abgegebenen Einschätzungen abweichen. Die E.ON AG beabsichtigt nicht und übernimmt keinerlei Verpflichtung, derartige zukunftsgerichtete Aussagen zu aktualisieren und an zukünftige Ereignisse oder Entwicklungen anzupassen.

This presentation may contain forward-looking statements based on current assumptions and forecasts made by E.ON Group management and other information currently available to E.ON. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. E.ON AG does not intend, and does not assume any liability whatsoever, to update these forward-looking statements or to conform them to future events or developments.