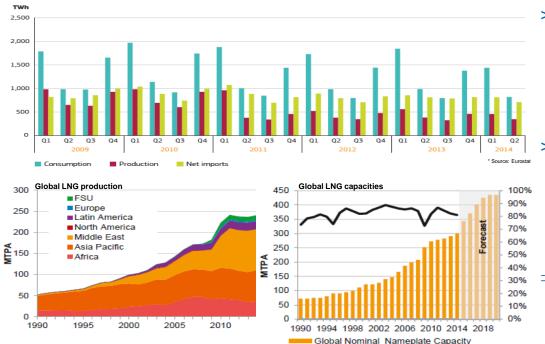
Low prices and low demand?

Andree Stracke – Board member and CCO, RWE Supply & Trading Flame, Amsterdam, 9th of May 2017



Low gas prices are usually the result of a shift in the applicable supply-demand-balance

% of Nameplate Capacity Utilised (right axis)



- Comparably low demand in Europe in recent years due to economic situation and energy efficiency gains (demand decrease of 124bcm between 2010 and 2014)
 - Comparably high supply due to high production capacities (former high investments), especially in LNG (supply increase of 93bcm between 2009 and 2014)
- The result is a dynamic and ever more global supply-demandbalance and oil/coal substitution process



* Source: IGU

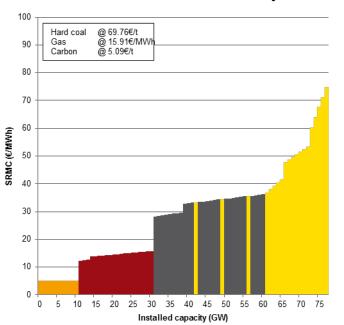
The size of a relative change in prices, impacting gas demand, depends on the power generation mix

Gas

■ Lignite

Nuclear

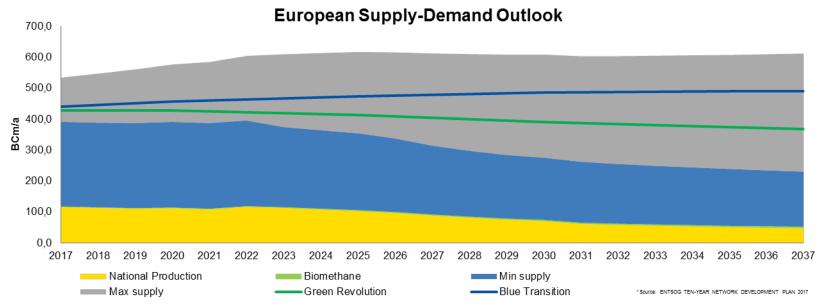
Schematic Merit Order Germany - Mar'17



- A reaction from a shift in relative price levels should first come from the power sector as ideal generation capacity makes it easy to respond
 - The main competing fuel type to gas in electricity generation is coal
 - Additional gas demand in NWE could reach up to 15 bcm/a
 - At current CO₂ and commodity price levels gas already starts substituting coal and could gradually increase or decrease levels depending on the clean-spark-spread development
- Conventional demand, both from private sector and the industry, requires a longer term relative price shift to justify switching costs



With ongoing surplus of energy commodities and w/o a regulatory modification, low gas prices remain



As long as we see a global oversupply the current relative price regime should basically remain and thus no reaction from gas supply will be incentivised – but maybe from the demand side!



THANK YOU VERY MUCH FOR YOUR ATTENTION.



Definitions of Demand Scenarios of Slide 4

TYNDP 2017 DEMAND SCENARIO PARAMETERS

TYNDP 2017 SCENARIOS	SLOW PROGRESSION	BLUE TRANSITION	GREEN EVOLUTION	EU GREEN REVOLUTION
ENERGY POLICIES/ REGULATION	2030/2050 targets not realistically reachable	On track with 2030/2050 targets	On track with 2030/2050 targets	On track with 2030/2050 targets, potential to achieve early
ECONOMIC CONDITIONS	Limited growth	Moderate growth	Strong growth	Strong growth
GREEN AMBITIONS	Lowest	Moderate	High	Highest
CO ₂ PRICE	Lowest CO ₂ price (limited spread of carbon taxes)	Moderate CO ₂ price (carbon taxes mainly spread)	Highest CO₂ price (carbon taxes well spread)	Highest CO ₂ price (carbon taxes well spread)
FUEL PRICES	Highest fuel prices [expected gas price > coal price]	Moderate fuel prices [expected gas price > coal price]	Lowest fuel prices [expected gas price > coal price]	Lowest fuel prices [expected gas price > coal price]
INTERNAL ENERGY MARKET	Well-functioning, low MS cooperation	Well-functioning, moderate MS cooperation	Well-functioning, strong MS cooperation	Well-functioning, strongest MS cooperation
RENEWABLES DEVELOPMENT	Lowest	Moderate	High	Highest

HEATING SECTOR				
ENERGY EFFICIENCY	Slowest improvement	Moderate improvement	Fastest improvement	Fastest improvement
COMPETITION WITH ELECTRICITY	Limited gas displacement (new buildings)	Limited gas displacement (new buildings)	Some gas displaced (district heating, heat pumps)	Some gas displaced (district heating, heat pumps)
ELECTRIFICATION OF HEATING	Lowest	Moderate	High	Highest

POWER SECTOR				
GAS VS COAL	Coal before Gas	Gas before Coal (on regulatory basis)	Gas before Coal (on regulatory basis)	Gas before Coal (on regulatory basis)

TRANSPORT SECTOR					
Gas in transport	Lowest penetration	Highest penetration	Moderate penetration	Moderate penetration	
Electricity in transport	Lowest penetration	Moderate penetration	Highest penetration	Highest penetration	

EXPECTATIONS REGARDING EU OVERALL GAS DEMAND	EXPECTED TO REMAIN STABLE	EXPECTED TO INCREASE	EXPECTED TO DECREASE	EXPECTED TO DECREASE FASTER AFTER 2020
RELATED ENTSO-E 2030 VISIONS	VISION 1	VISION 3	VISION 4	VISION 4

