

TYNDP scenarios

ACER CBA Workshop – 10 May 2016

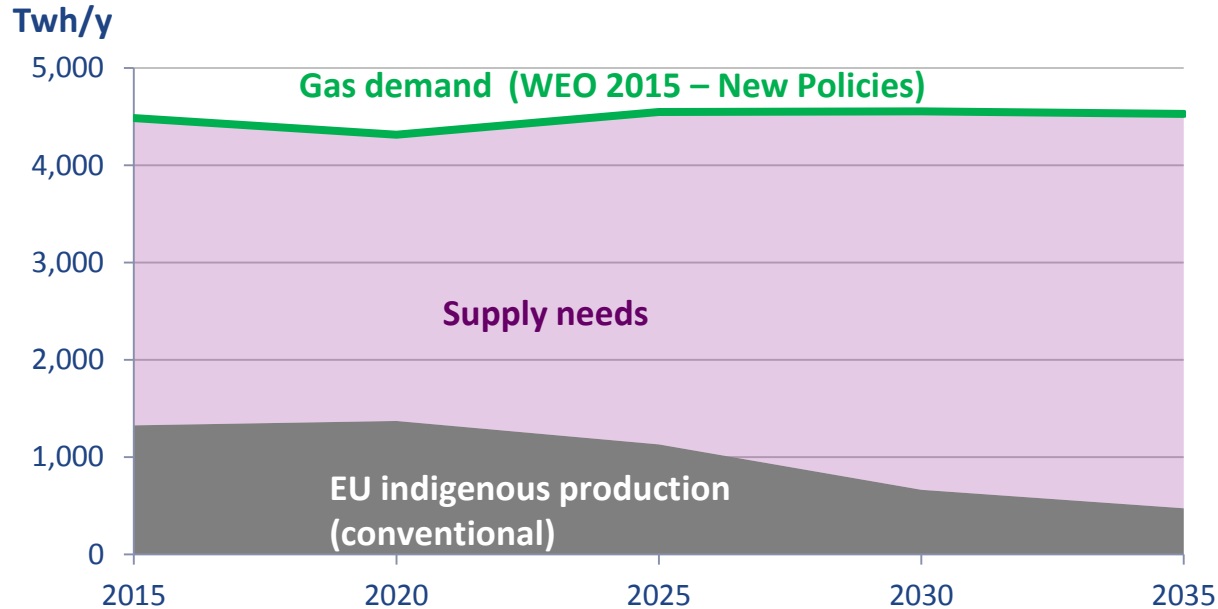
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EU gas system fundamentals

Today gas supply is more than 70% extra-EU



- > Supplies shaped the development of the gas grid
- > **Increasing supply needs** and supply **diversification** are key issues

Supply potentials are used as assumptions in the TYNDP.

TYNDP assesses contrasted supply mixes.

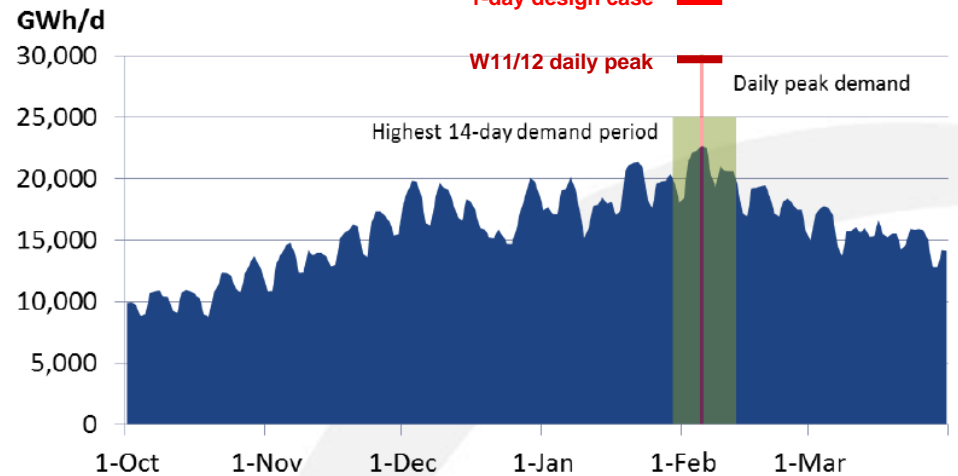
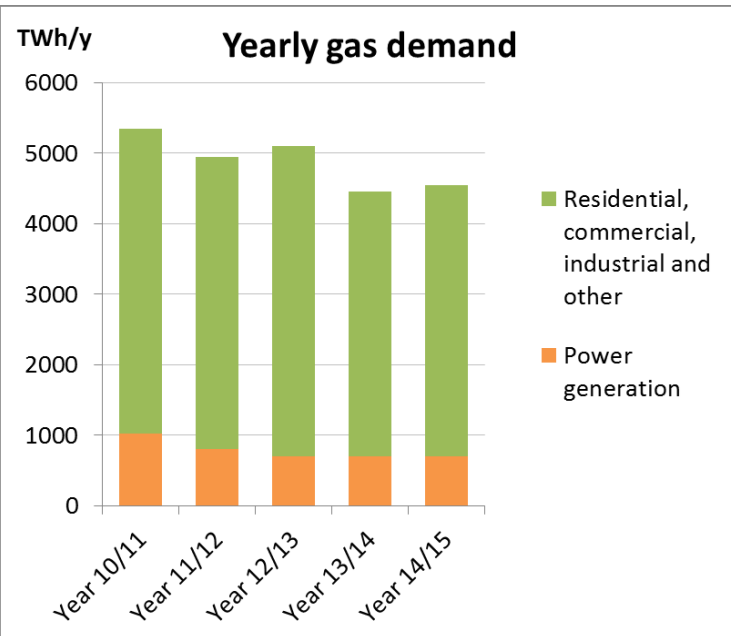


EU gas system fundamentals



Gas demand

- > High temperature dependence
- > RES intermittency will play an increasing role



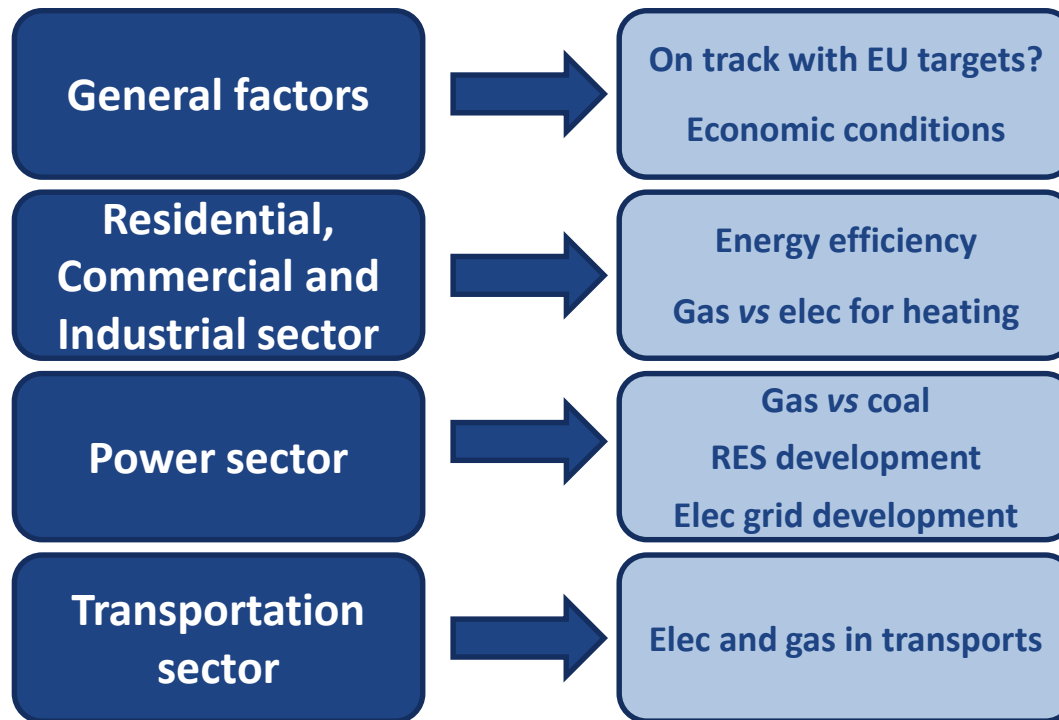
Sectoral demand impacted by...

- > Economic conditions
- > Displacement by coal for power generation

TYNDP looks at both *average annual* and *peak* demand

Scenarios

> Scenarios look at **factors** impacting the EU energy sector



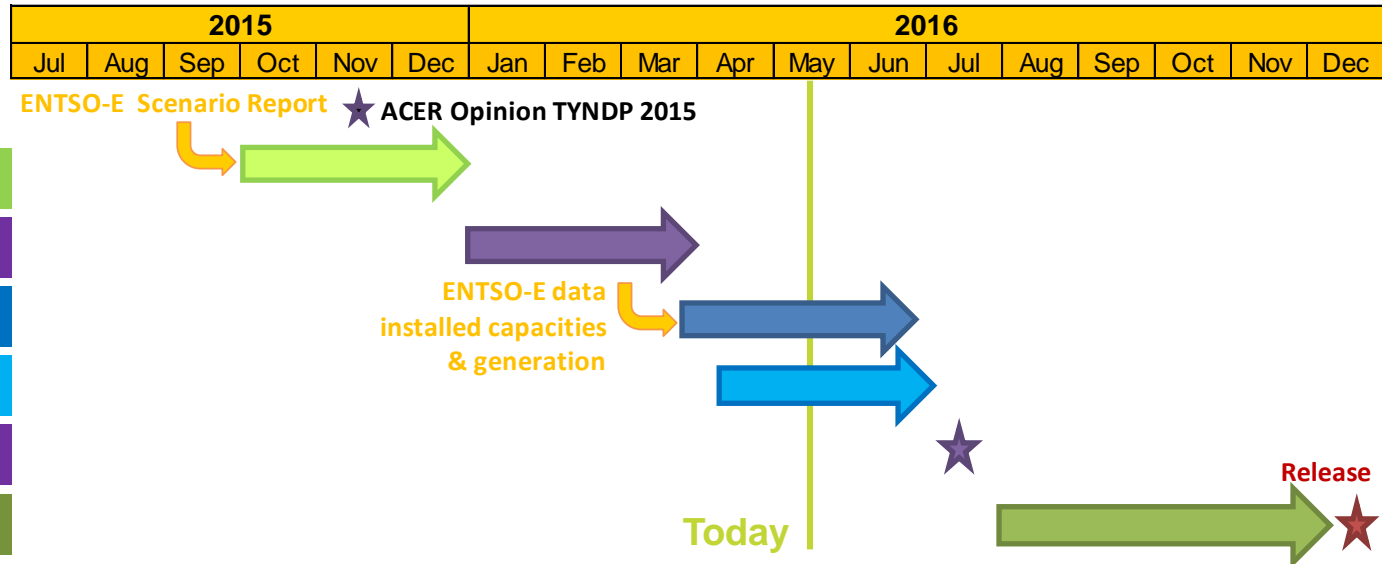
Demand-focused scenarios defining possible story lines for the EU energy sector



TYNDP 2017 - Development process



- Scenario & assumptions
- Stakeholder engagement
- Demand data collection
- Call for projects & check
- Data publication
- Modelling and editing



Scenario development process

- > Strong interaction with **stakeholders**
- > Cooperation with ENTSO-E for the **power sector**
 - Scenario Report considered for gas scenario building
 - **Generation** & capacities as input together with **gas expertise & gas vs coal sensitivity**



TYNDP 2017 – 3 scenario story lines

TYNDP 2017 Scenarios	Slow Progression	Blue Transition	Green Revolution
Energy Policies/ Regulation	2050 targets not realistically reachable	Mainly on track with 2050 targets [closure of coal-fired power plants (regulation)]	On track with 2050 targets
Economic conditions	Limited growth	Moderate growth	Strong growth
Green ambitions	Lowest	Moderate	Highest
CO2 price	Lowest CO2 price (limited spread of carbon taxes)	Moderate CO2 price (carbon taxes mainly spread)	Highest CO2 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]
Internal energy market	Well functioning, low MS cooperation	Well functioning, moderate MS cooperation	Well functioning, strong MS cooperation
Renewables develop.	Lowest	Moderate	Highest
Gas in heating sector			
Energy Efficiency	Slowest improvement	Moderate improvement	Fastest improvement
Competition with electricity	Limited gas displacement by elec. (new buildings)	Limited gas displacement by elec. (new buildings)	Gas displaced by electricity (district heating, heat pumps)
Electrific. of heating	Lowest	Moderate	Highest
Gas in power sector			
Gas vs Coal	Coal before Gas	Gas before Coal (on regulatory basis)	Gas before Coal (on regulatory basis)
Gas in transport			
Gas in transport	Lowest penetration	Highest penetration	Moderate penetration
Electricity in transport	Lowest penetration	Moderate penetration	Highest penetration
Expectations regarding EU overall gas demand	Expected to remain stable	Expected to increase	Expected to decrease

**ENTSO-E
2030 Visions**

Vision 1

Vision 3

Vision 4



Thank You for Your Attention

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