TYNDP 2017 Scenarios

Overview and achievement of EU targets

ENTSOG System Development Team
## 4 Demand Scenarios

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<tr>
<th>Category</th>
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<th>Blue Transition</th>
<th>Green Evolution</th>
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<td>displacement by</td>
<td>displacement by</td>
<td>electricity (district</td>
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<td>elec. (new buildings)</td>
<td>elec. (new buildings)</td>
<td>heating, heat pumps)</td>
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**Related ENTSO-E 2030 Visions**

- **Vision 1**
- **Vision 3**
- **Vision 4**
- **Vision 4**
Sectoral gas demand

End-user demand

Stable to decreasing demand depending on energy efficiency gains and electrification of the heating sector

Gas for power demand

Stable to increasing demand depending on role of gas in RES back-up and substituting coal-fired generation

End-user demand consist of the following demand: residential & commercial, industrial and transport
Overall gas demand

TYNDP assessment performed for the 3 on target scenarios
Several paths to achieving the EU targets

**CO2 emissions**

> The on-target scenarios achieve the target of 40% CO2 reduction compared to 1990

![CO2 Emissions - 2030](image)

CO2 emissions in 2030 – overall power demand and gas end-user demand

**Renewables**

> TYNDP 2017 scenarios for power generation are based on ENTSO-E TYNDP 2016 Visions which comply with the **EU RES-E target**

> TYNDP 2017 scenarios incorporate **biomethane**, a renewable gas source

When looking at targets’ achievement in the gas and power sectors it should be kept in mind that targets are set globally across all sectors.
Several paths to achieving the EU targets

**Energy Efficiency**

> 27% (resp. 30%) targets set against the 2007 PRIMES baseline for 2030 (total primary energy). In reference to the **2005 level**, it corresponds to **20% gains** (resp. **23%**)

> Standard usages of gas already allow to achieve the EE target

> Gas displacing other fuels, such as for power generation, further increases the gains

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When looking at targets’ achievement in the gas and power sectors it should be kept in mind that targets are set globally across all sectors
Gas network designed for peak situation

European gas and electricity demand – over the year and peak perspectives

Scenarios cover both average climatic year and peak perspectives
Scenarios - a key input to TYNDP assessment

There are several paths to achieving the EU targets: the gas grid is to be assessed for these different paths

The gas grid needs to be fit both for annual volume and peak situations
Thank You for Your Attention

ENTSOG System Development Team
ENTSOG -- European Network of Transmission System Operators for Gas
Avenue de Cortenbergh 100, B-1000 Brussels

EML:
WWW: www.entsog.eu