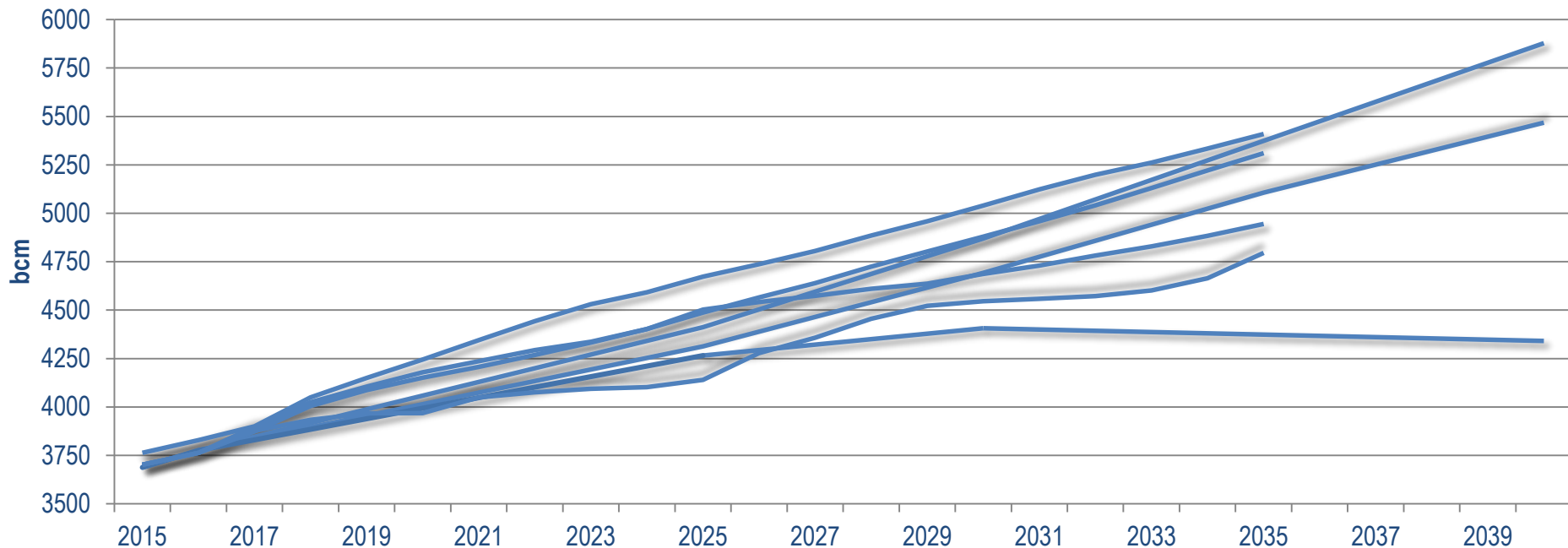


European Gas Demand and Sources of Gas Supply

Tatiana Zhitenko

*Deputy Head of Directorate –
Head of Division, Gazprom*

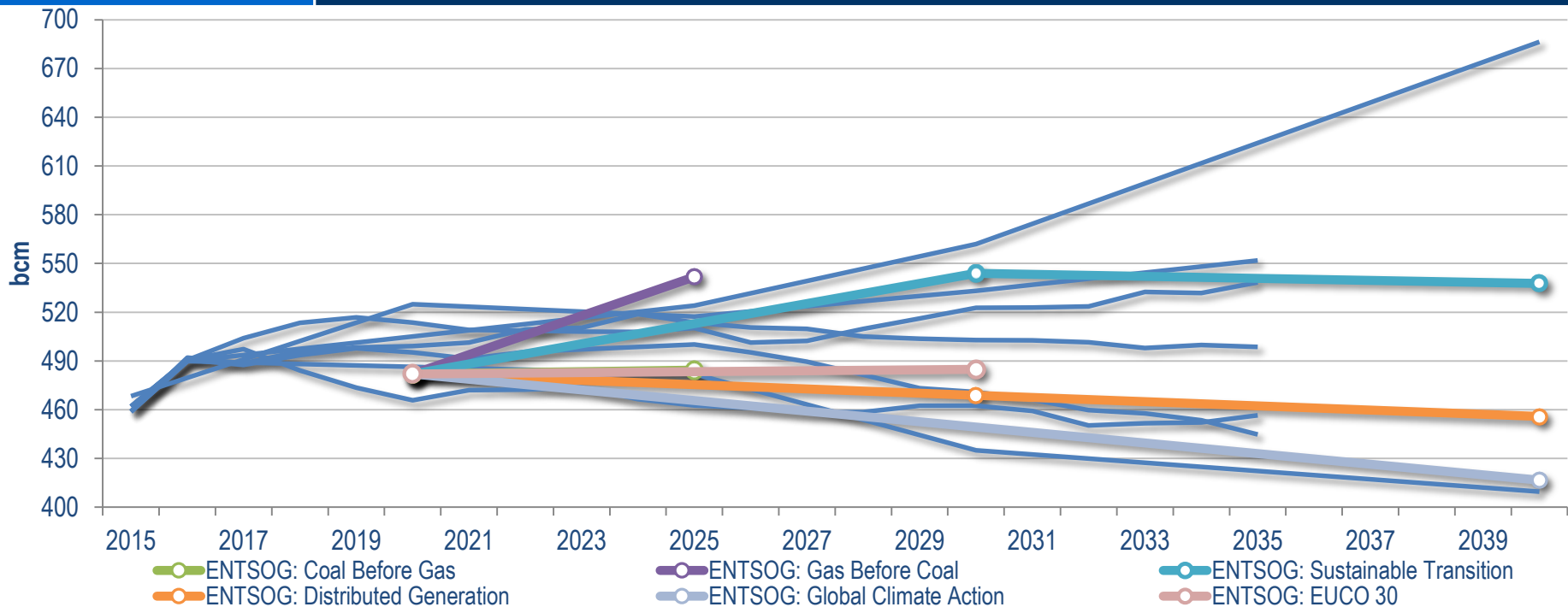
Global Gas Demand



Hereinafter: adjusted to Russian gas ($T=20\text{ }^{\circ}\text{C}$, calorific value = 37.053 MJ/cm), unless stated otherwise.

Sources: IEA, IHS, Wood Mackenzie

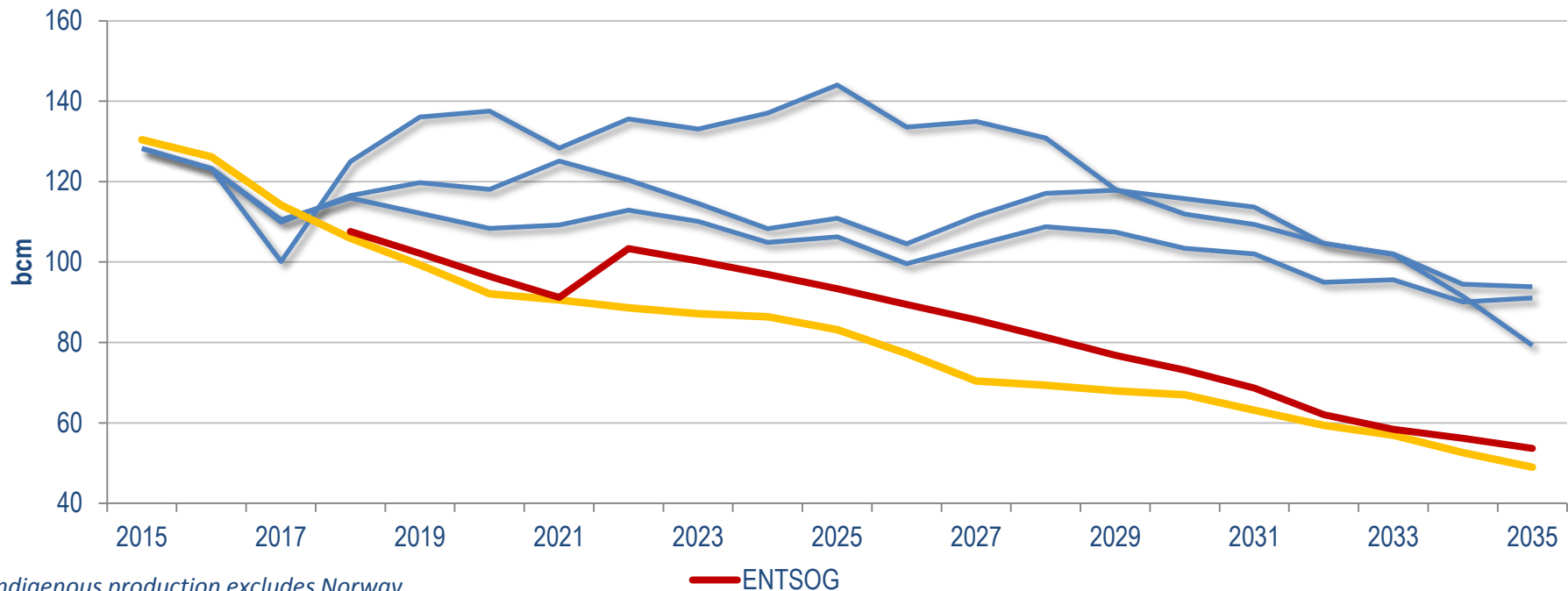
European Gas Demand



Sources: IEA, IHS, Wood Mackenzie, BP

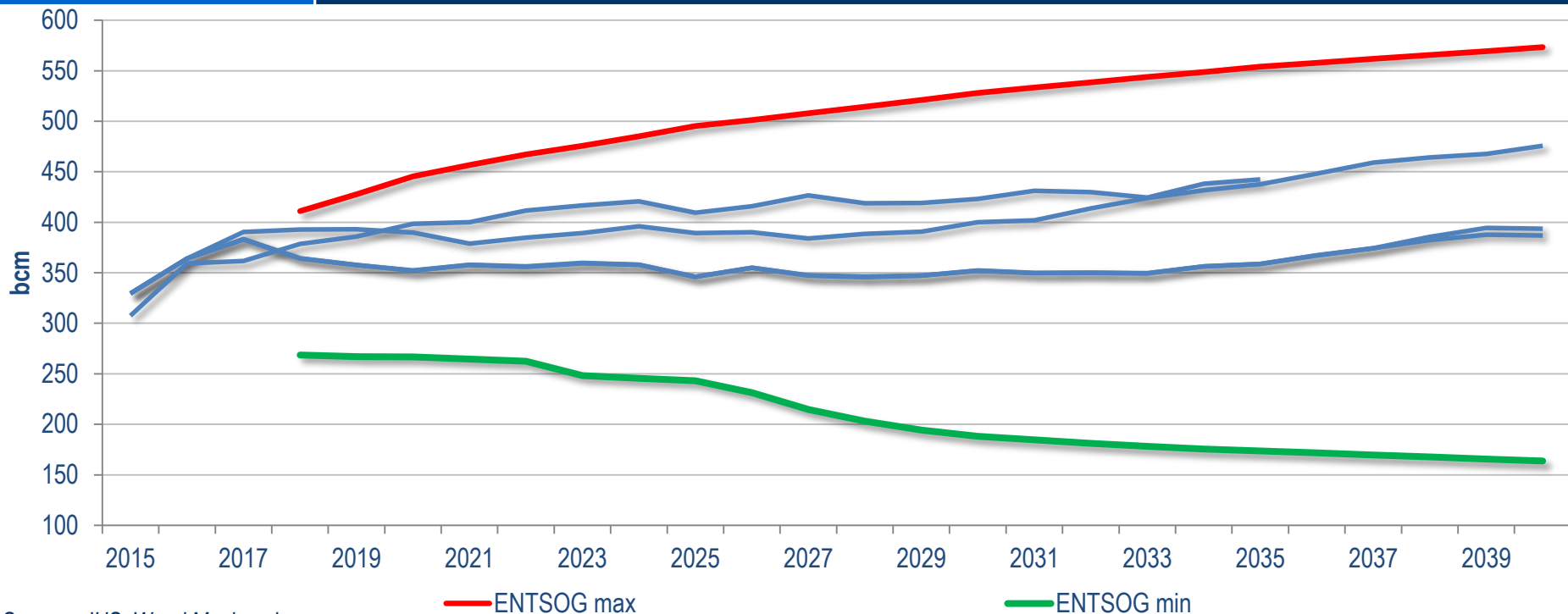
Hereinafter: adjusted to Russian gas (T=20 °C, calorific value = 37.053 MJ/cm), unless stated otherwise.

Indigenous Production in Europe



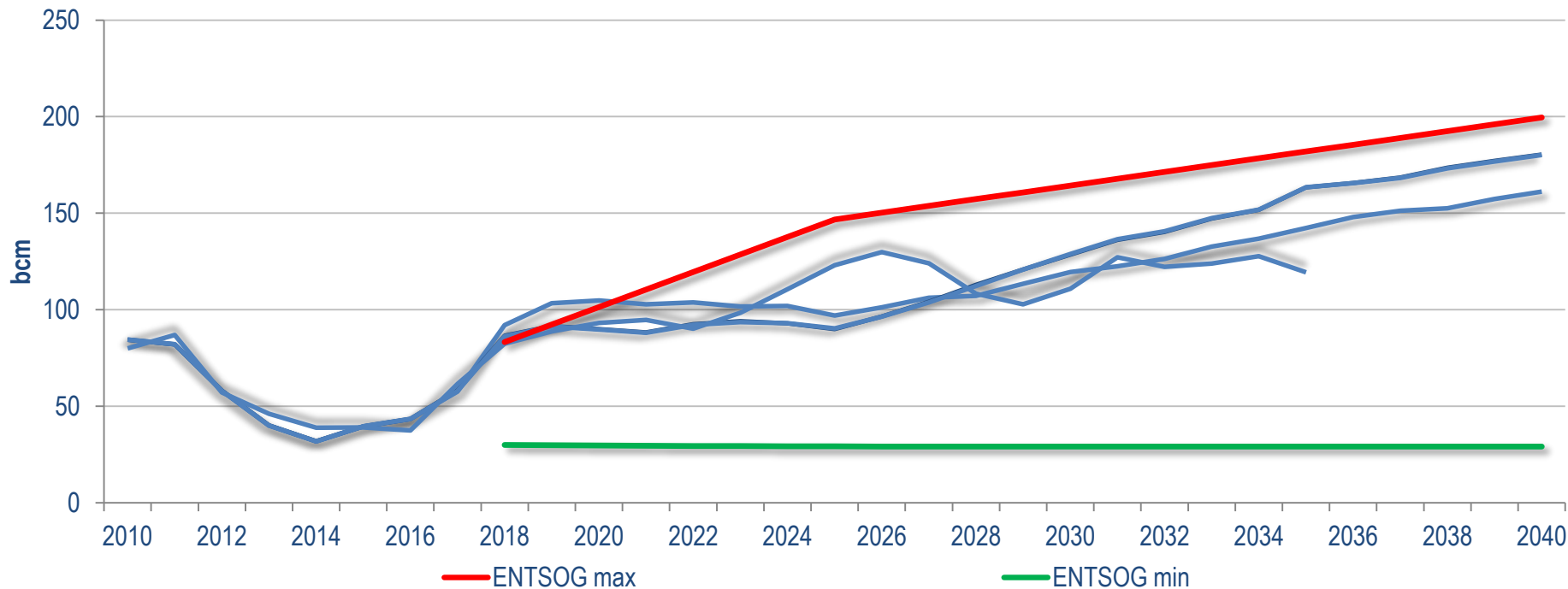
Sources: IHS, Wood Mackenzie

Total Gas Imports to Europe



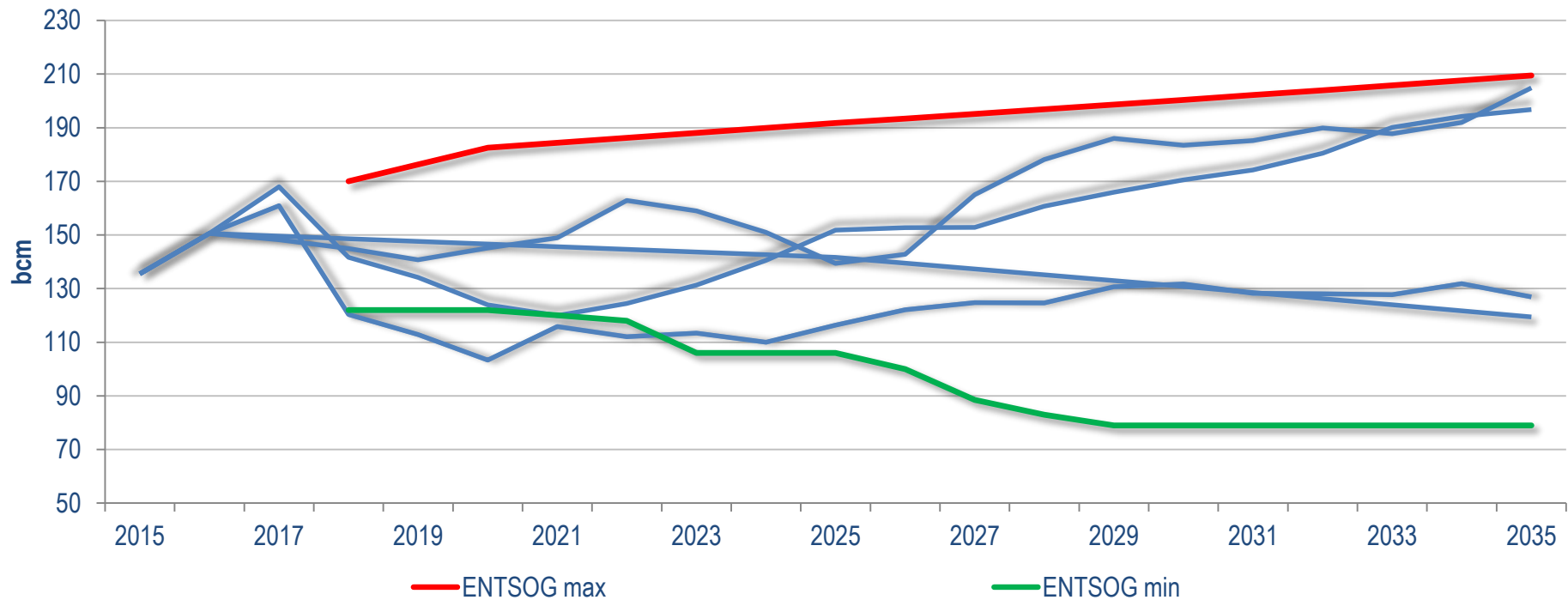
Sources: IHS, Wood Mackenzie

LNG Imports to Europe



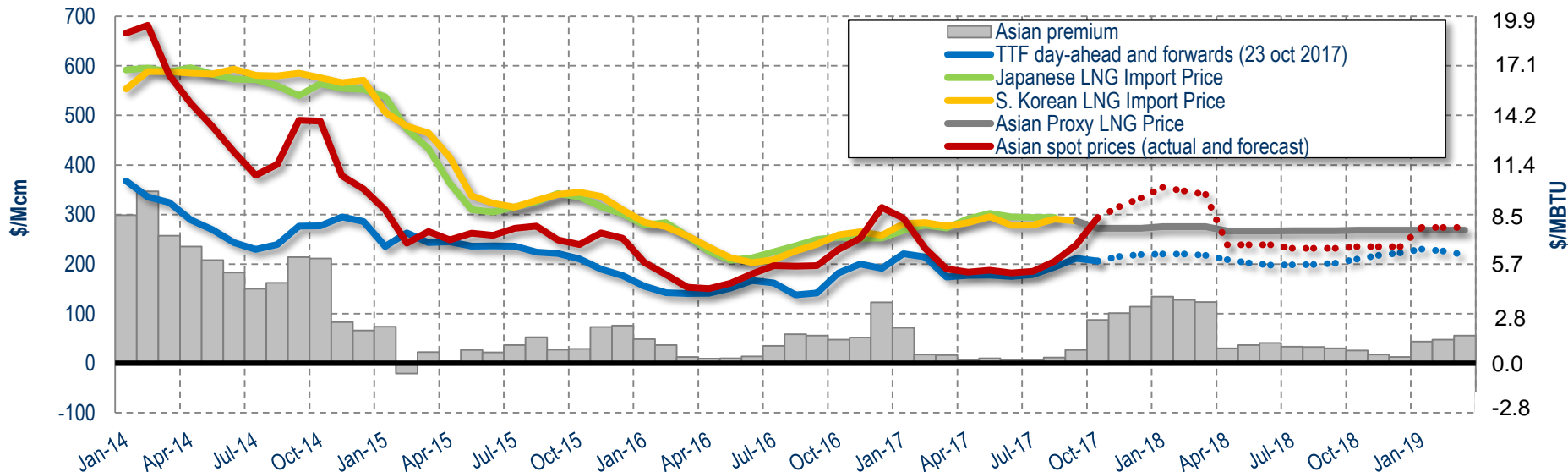
Sources: IHS, Wood Mackenzie

Russian Gas Supply to Europe



Sources: IHS, Wood Mackenzie

Asian Price Premium, TTF Prices and Asian LNG Prices

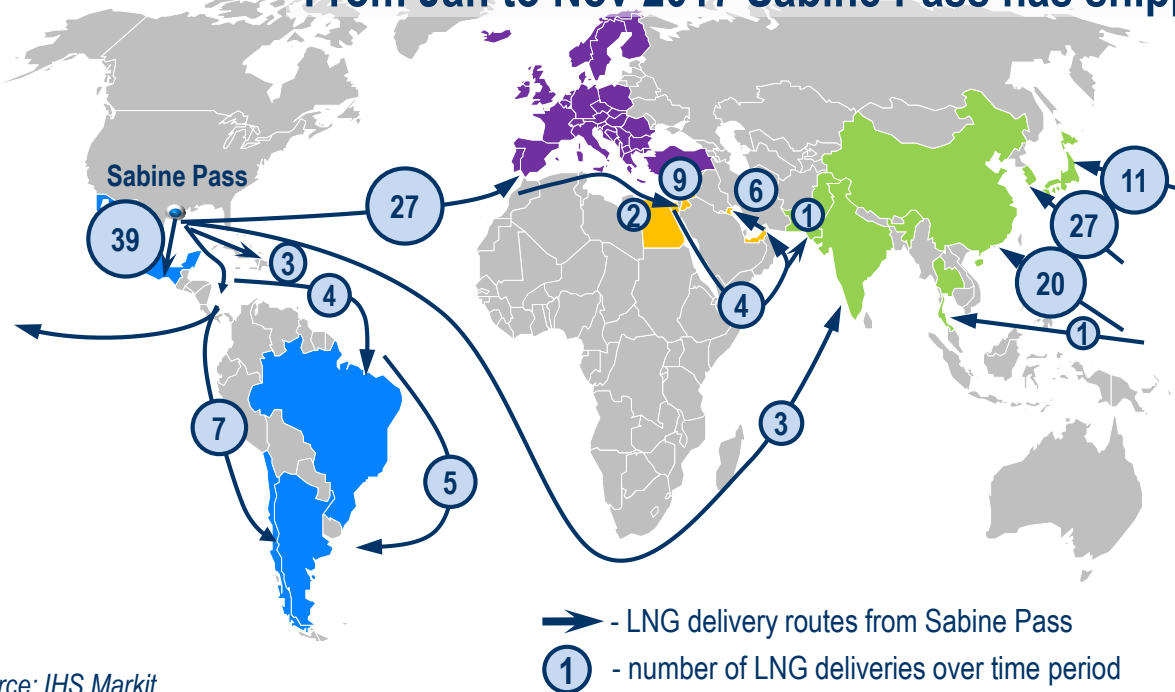


Growing Asian premium is supporting higher attractiveness of Asian market for flexible LNG deliveries versus European market.

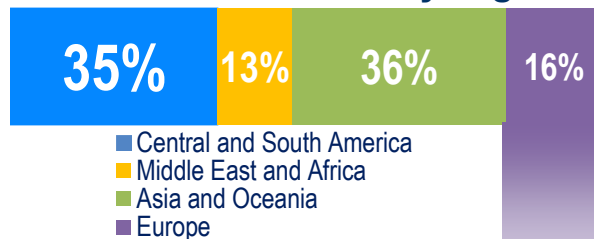
Sources: Bloomberg, Interfax-GGA, Platts, Ministry of Economy, Trade and Industry of Japan, Customs Statistics of S. Korea and Japan.

LNG deliveries from Sabine Pass

From Jan to Nov 2017 Sabine Pass has shipped **11,8 mt** of LNG.



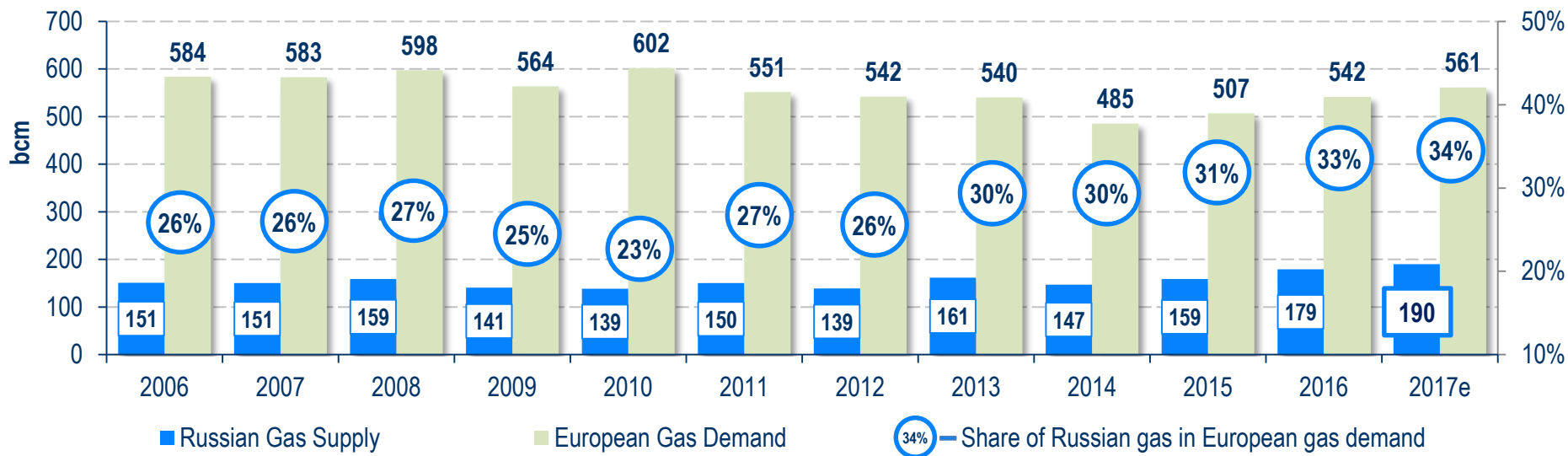
Share of deliveries by region



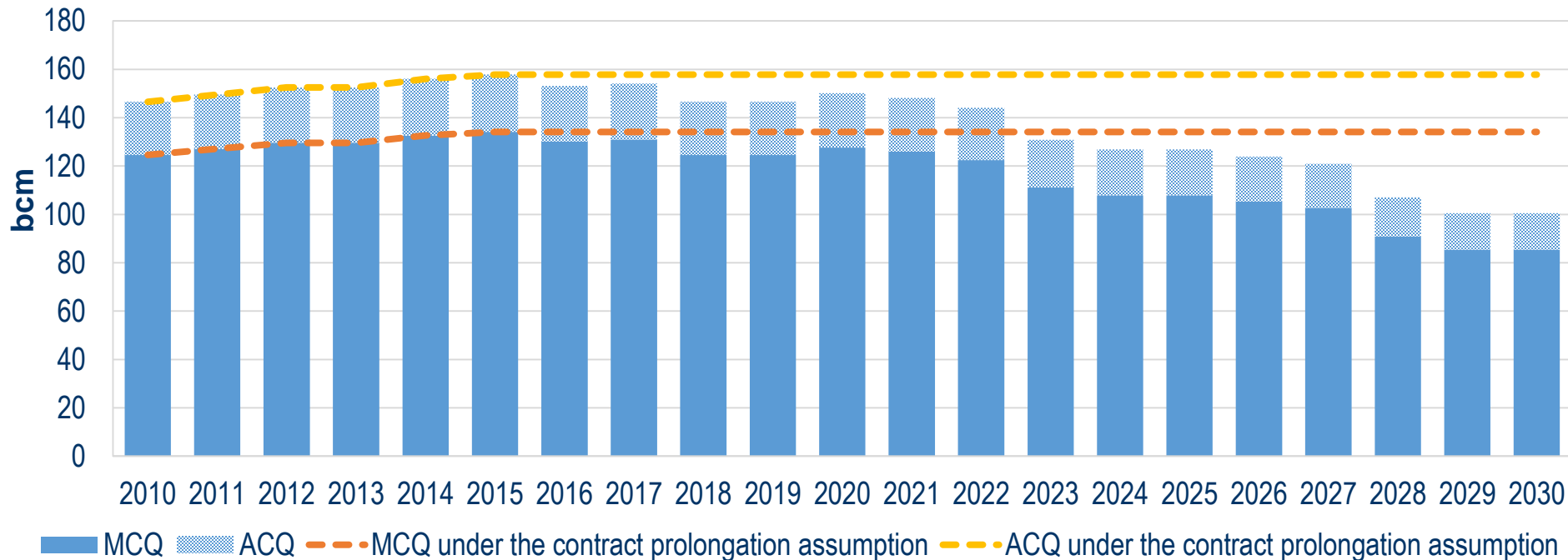
including Europe –
1,8 mt or $\approx 0,5\%$ of European
gas demand.

Record High Deliveries of Russian Gas to Europe

- In 2016 the level of Russian gas deliveries to Europe reached record levels of **179,3 bcm**.
- We expect to have even higher numbers in 2017.



Russian Gas Contracted Volumes



Source: CEDIGAZ, under assumption that 85% of contacted volumes is Take-or-Pay (MCQ) and the rest is flexible (ACQ).

- Gas demand grows worldwide. In Europe various scenarios show either stable levels or moderate growth.
- Indigenous production decrease. The net imports grow. The niche will be taken by both pipeline gas and LNG.
- The efficient infrastructure has to be in place.
- Questions to the supply scenarios:
 - Counterintuitive: demand is not balanced with supply.
 - The difference between max and min scenarios is too high for imports.
 - Need to clarify a purpose of supply scenarios.



Thank you for your attention!