



Rise in global energy-related CO₂ emissions in 2017, after a 3-year stagnation

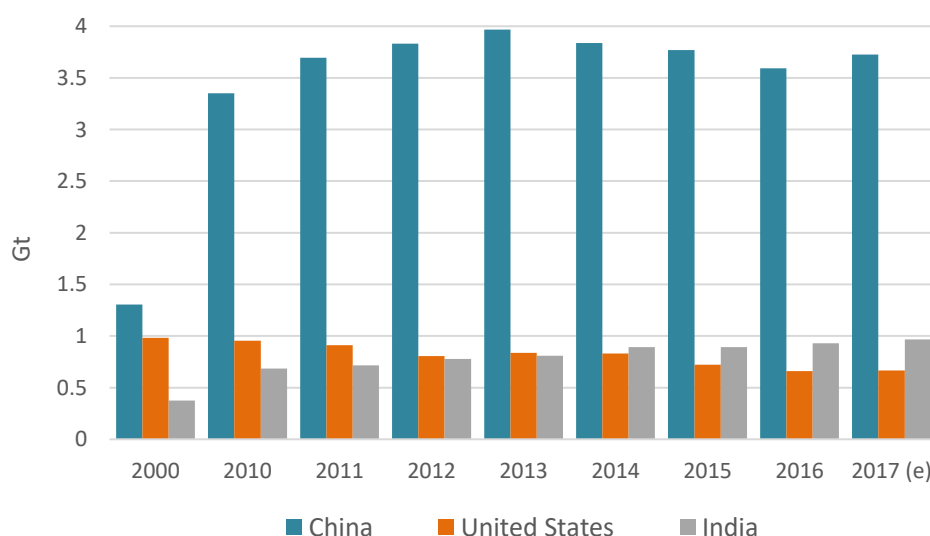
The rebound in Chinese coal consumption, after a 3-year drop, strongly drove this trend

Our preliminary estimates based on monthly data for key countries indicate a trend reversal in global energy-related CO₂ emissions: they grew in 2017, after having stabilized since 2014. The gap with a 2° scenario increases...

Hereunder are the key learnings of this analysis.

The **CO₂ emissions growth** in 2017 (estimated to around +2%) can be attributed to higher coal consumption. Global coal consumption is estimated to have increased noticeably in 2017 due to a rebound in China (+3.7%), steady growth in India (nearly +4%) and stabilization in the United States (+1%) after a 3-year decline (-20% between 2013 and 2016).

Coal and lignite consumption of the top 3 world consumers



Source : [Enerdata](#) – [Global Energy & CO₂ Data](#)

Coal

In China, sustained economic growth (around +6% in 2017), growing electricity consumption (nearly +7% in 2017 vs. +5% in 2016) and relaxed coal production restrictions contributed to a 3.7% growth in coal consumption - after a 3-year decline. According to customs data, coal imports rose by 6% in 2017 to a 3-year high, after coal import restrictions were eased in July 2017.

Coal consumption growth remained steady in India (around +4% in 2016 and 2017), supported by a 4% growth in domestic production. In the United States, higher domestic gas prices contributed to a slight increase of the use of coal for power generation.

Gas

The Chinese power sector remained strongly dependent on coal, despite surging renewable capacities and the implementation of a national coal-to-gas conversion policy. However, Chinese gas consumption has increased rapidly, with total natural gas imports (pipeline, trucked, LNG) growing 35% and LNG imports surging by nearly 50% in 2017, overtaking the United States as the third largest gas importer behind Japan and Germany.

In Russia, gas consumption rose after 4 years of decline, as the country's economy has recovered. In contrast, gas consumption contracted by about 3% in the United States. This decline in the US, the first after seven years of uninterrupted growth, mainly reflects a warm winter weather and a lower electric power sector use (lower electricity generation, increased competition from renewables - around 16% of the power mix in 2017, and cheap coal).

Electricity

Global electricity consumption growth was sustained in 2017 despite two opposite trends:

- Increasing electricity consumption growth in China (+6.6% in 2017, vs. +5.5% in 2016) - driven by the strong industrial demand and despite large energy efficiency improvements -, and in other large economies, such as Canada, Brazil or Russia.
- On the other hand, electricity demand continues to slightly decrease in the United States and in the European Union, as a result of energy efficiency improvements.

Oil

Oil consumption continued to grow in China by nearly 6% in 2017 (nearly +30% since 2012), as in India (over +2%) with the development of the vehicle fleet. The positive trends pursued in the United States (+1%) and in the European Union, confirming the trend reversal initiated over the recent past years.

*Our 2017 preliminary estimates are available in our Global Energy and CO2 Data information service. If you are interested to access the data, please **contact us at research@enerdata.net**.*

As every year, Enerdata's detailed "Global Energy Trends" will be published in May, with all details per country and per energy.