



COAL POWER INDUSTRY ON THE TURN

ENERGY TRANSITION IN POLAND

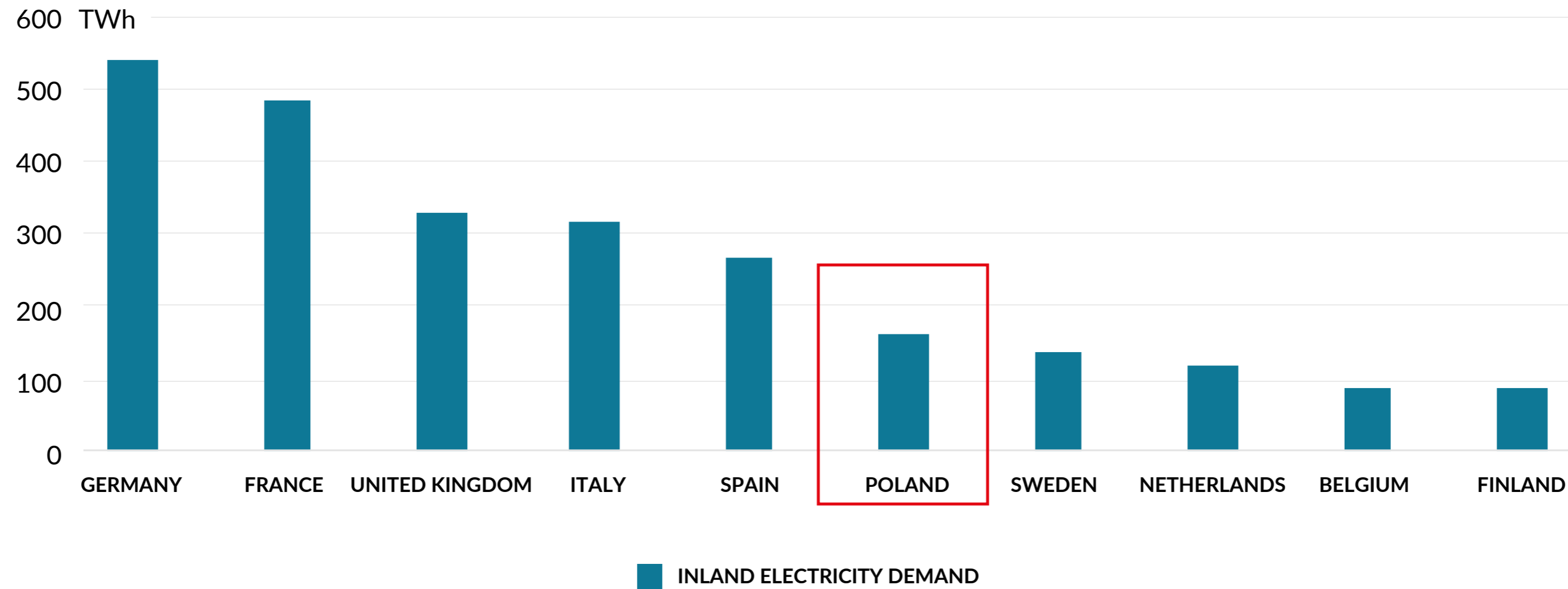
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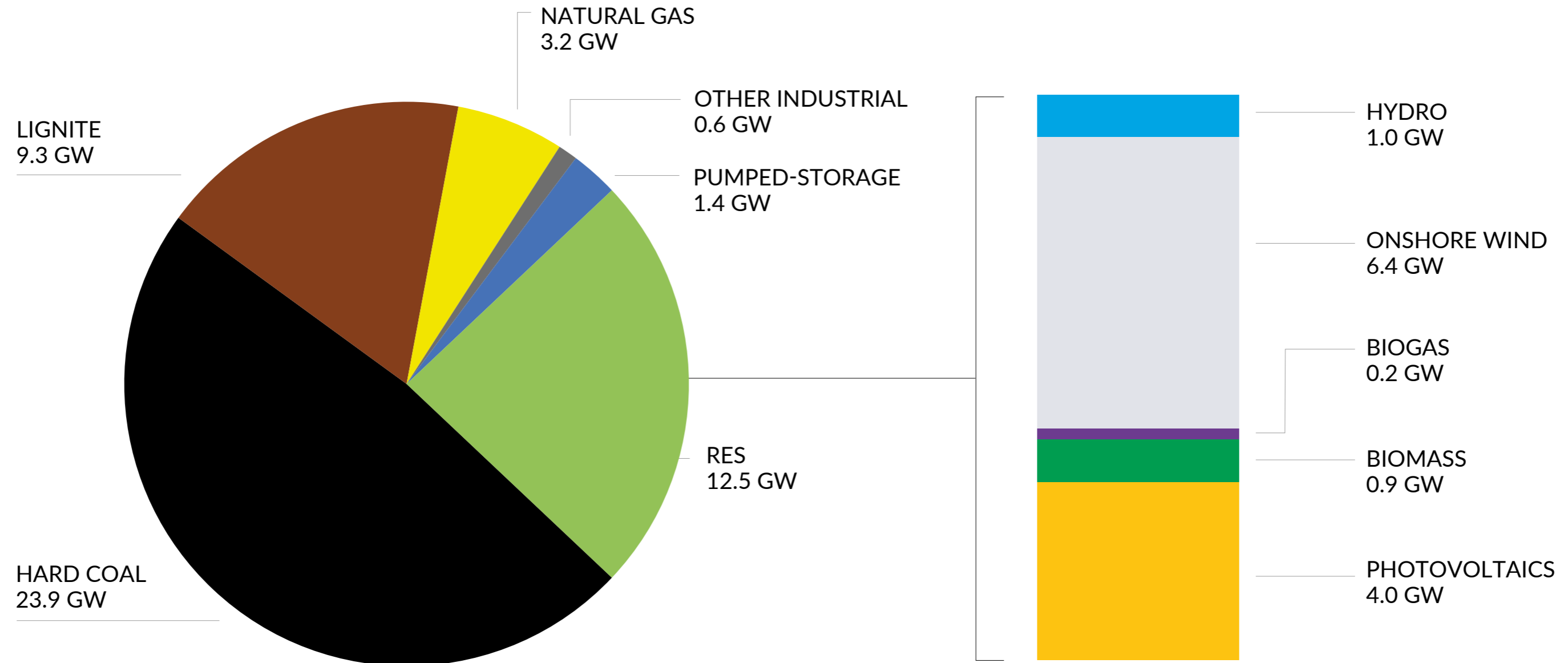
Largest electricity markets in the EU



Capacities and electricity production

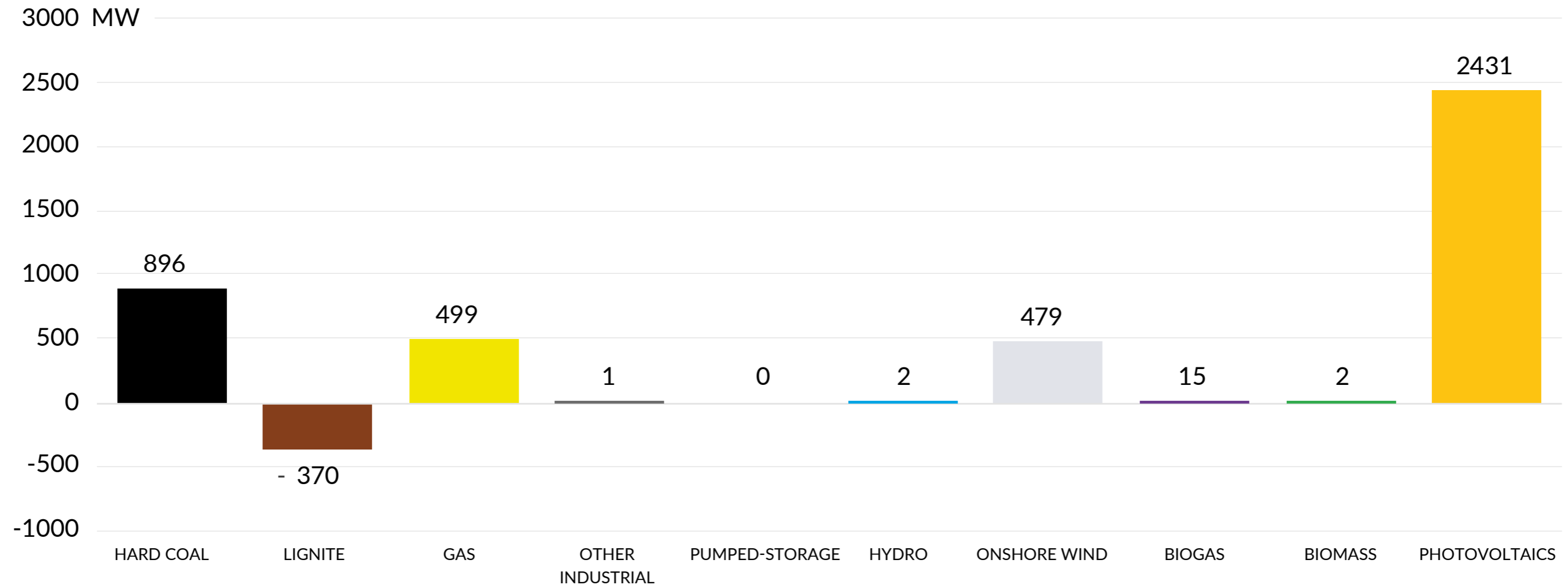
50.4 GW – available capacity in the Polish system

- **65% coal**



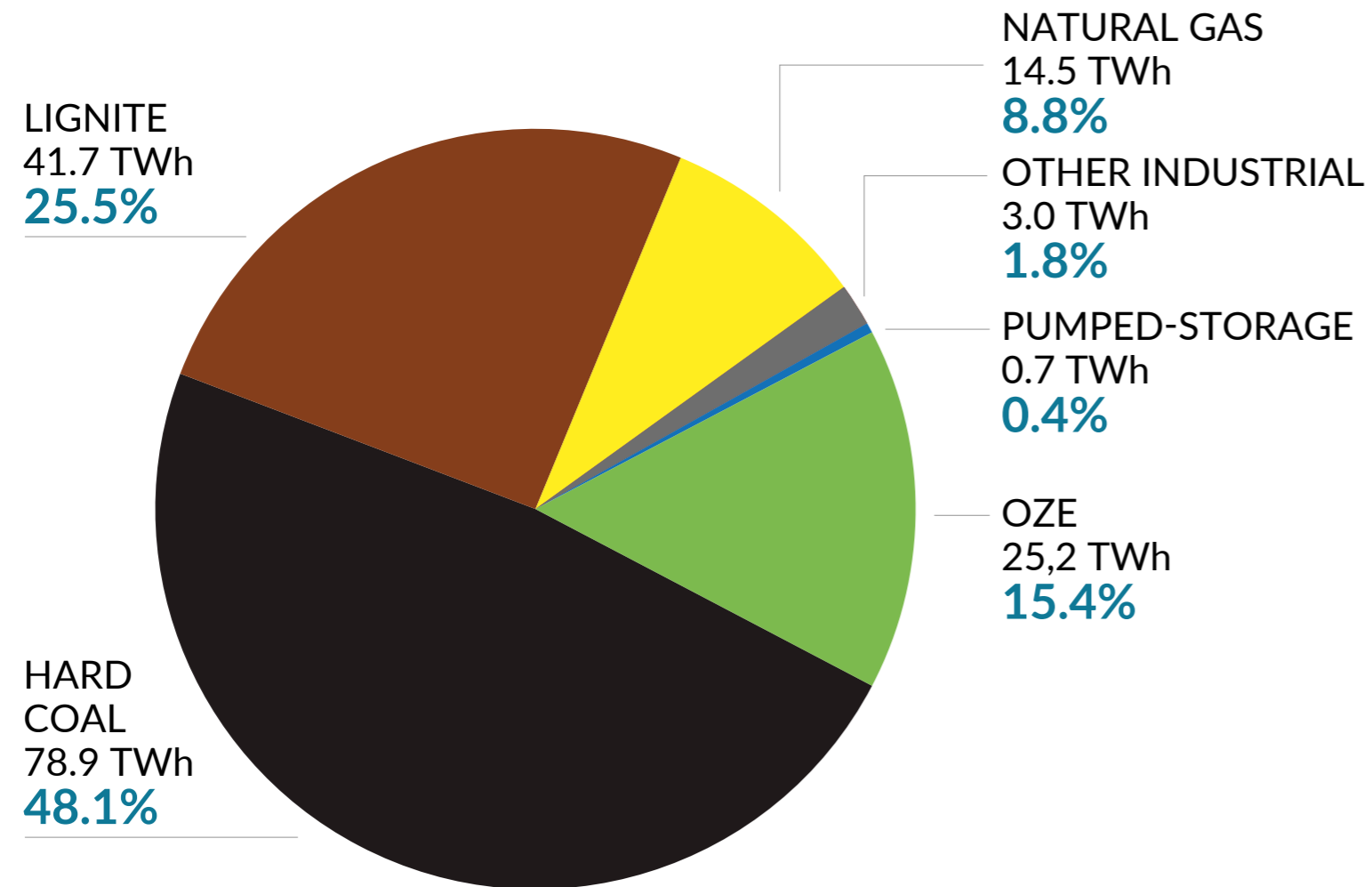
Source: based on data of ARE
As of 31.12.2020

Change in available capacity in 2020 as compared to 2019

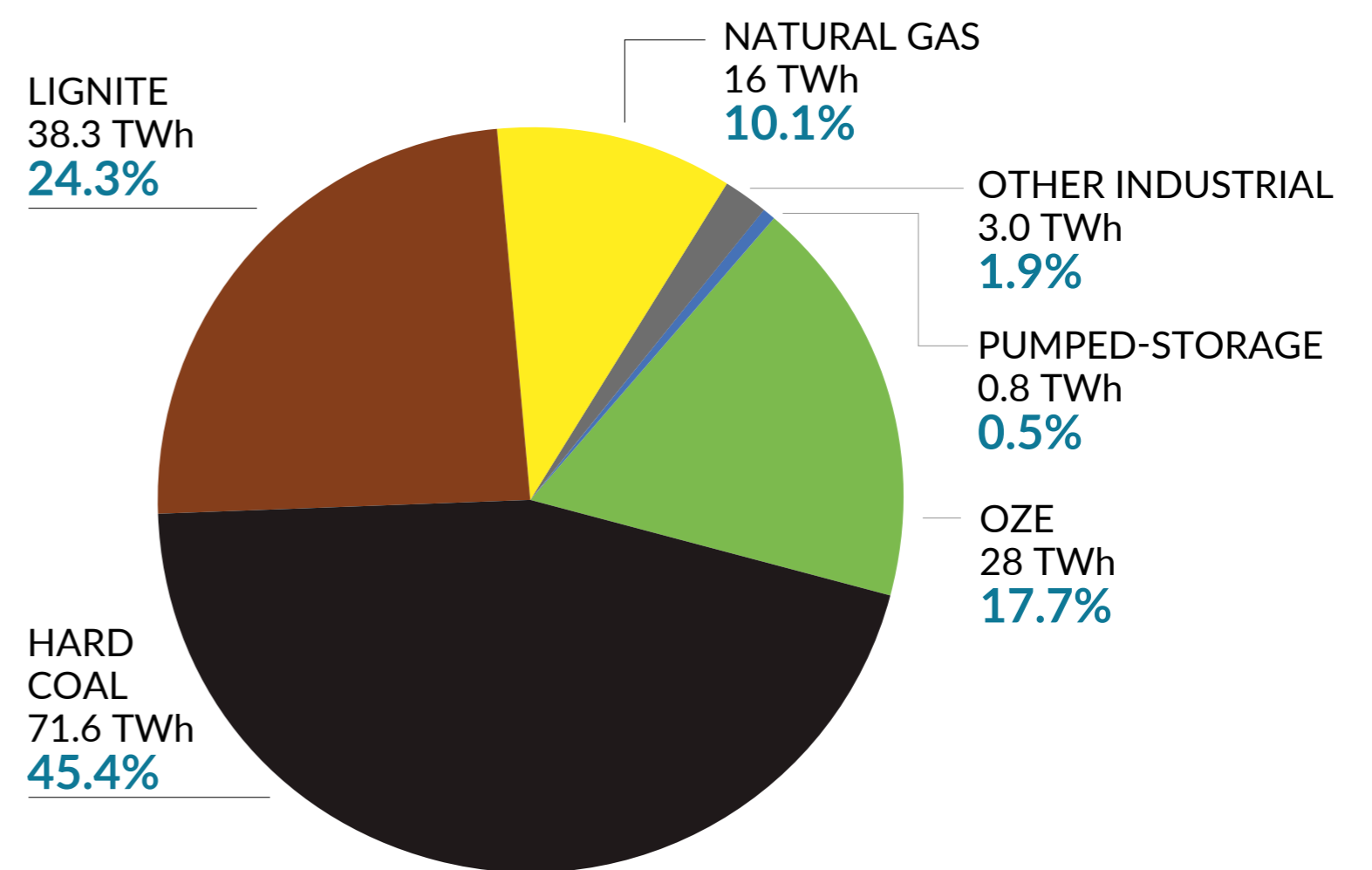


Electricity production

2019

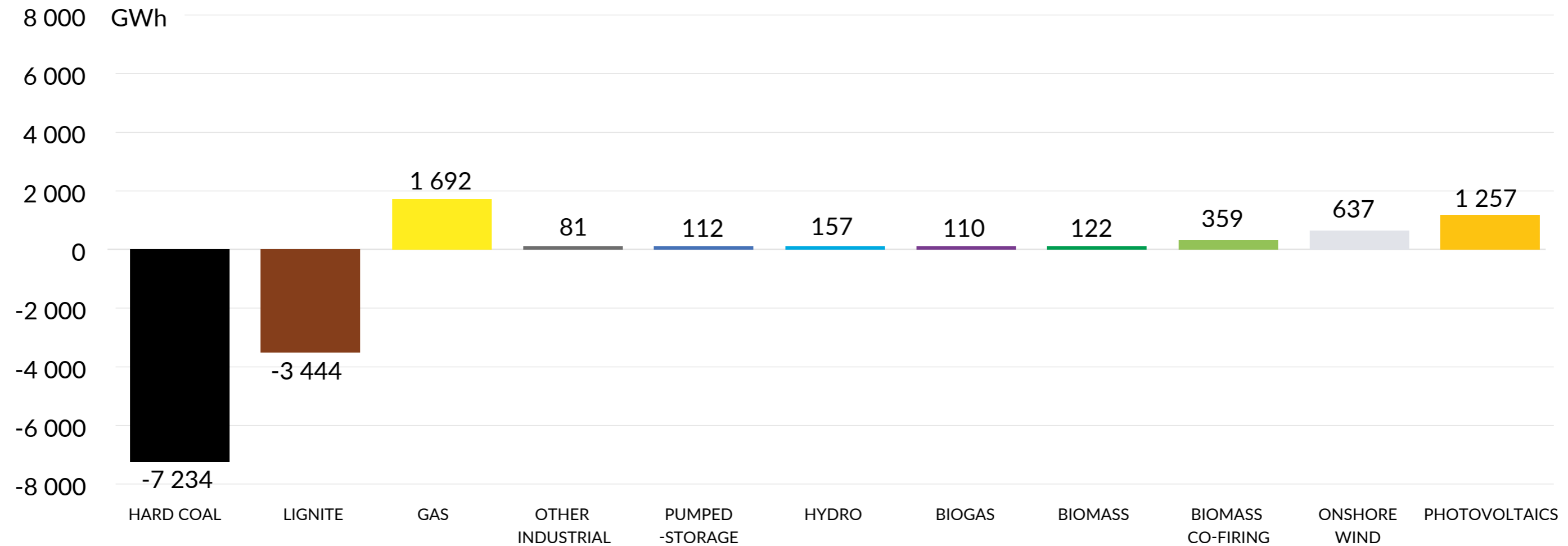


2020

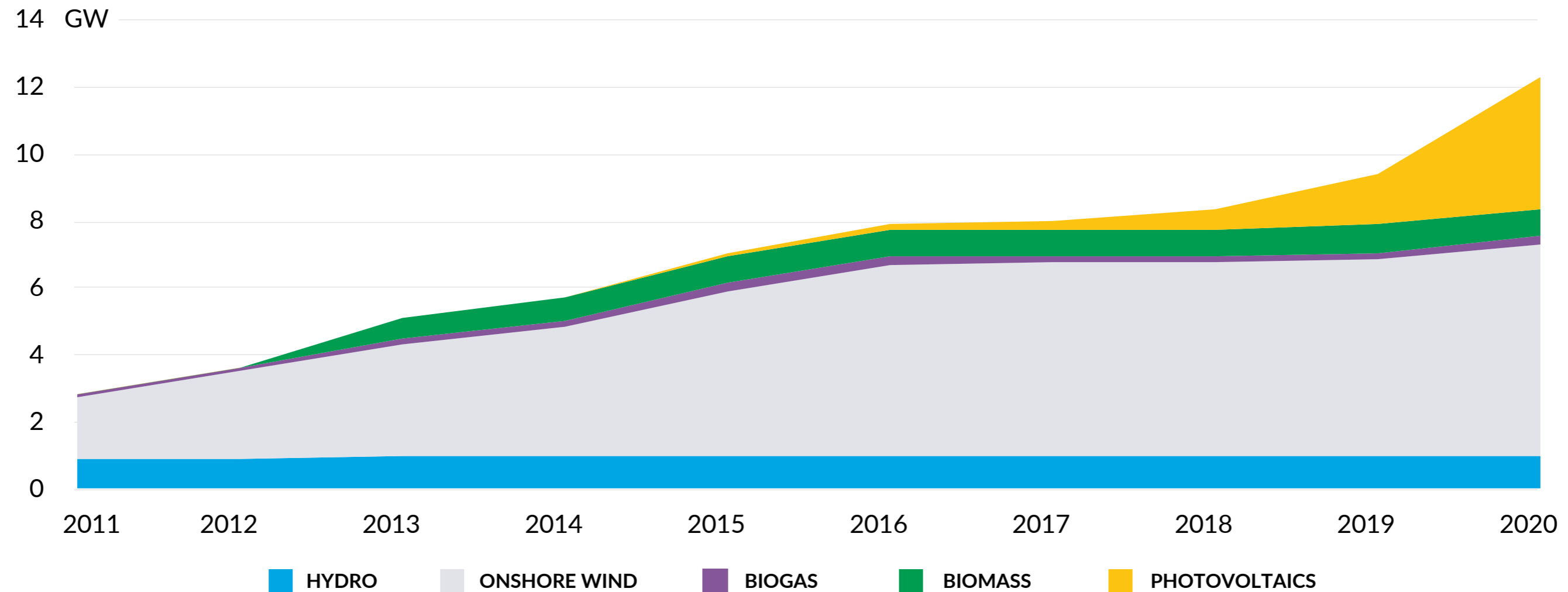


Source	2019	2020
COAL	73.6%	69.7%
RES	15.4%	17.7%
GAS	8.8%	10.1%

Change in electricity production in 2020 as compared to 2019

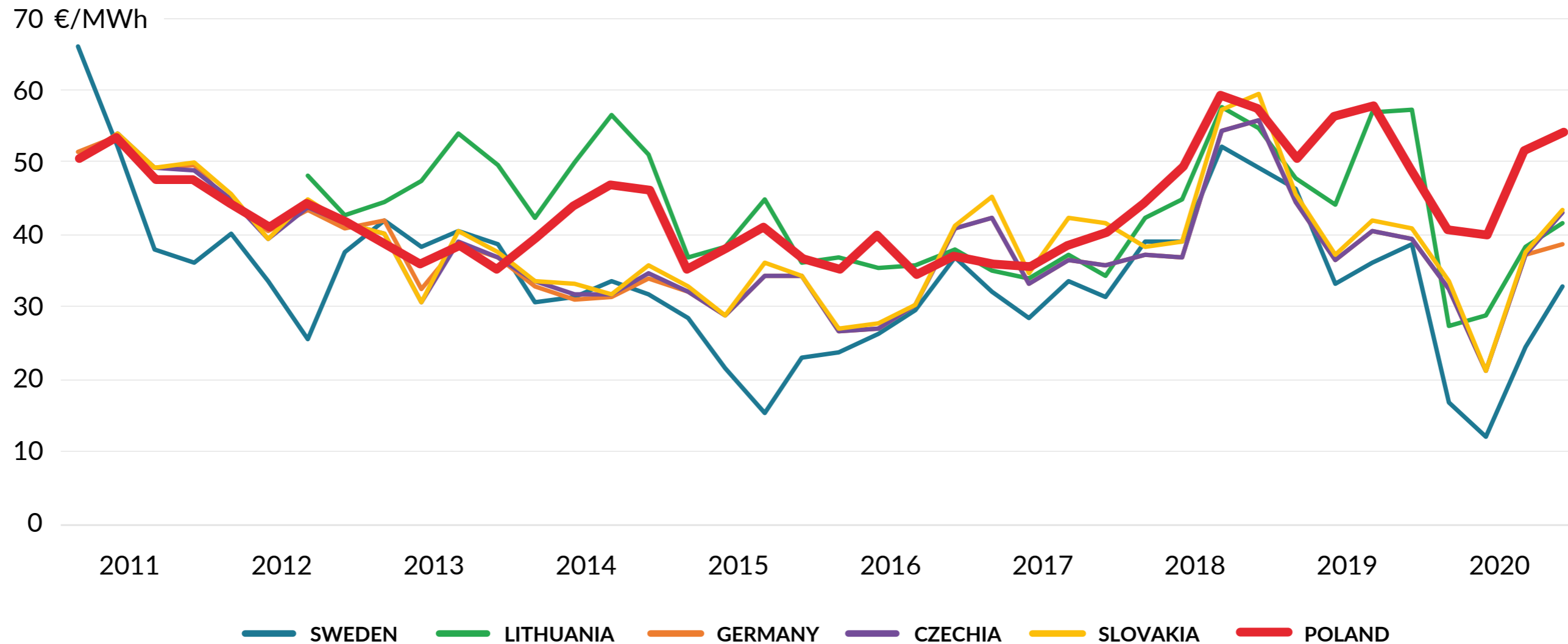


Changes in available renewable energy sources capacity

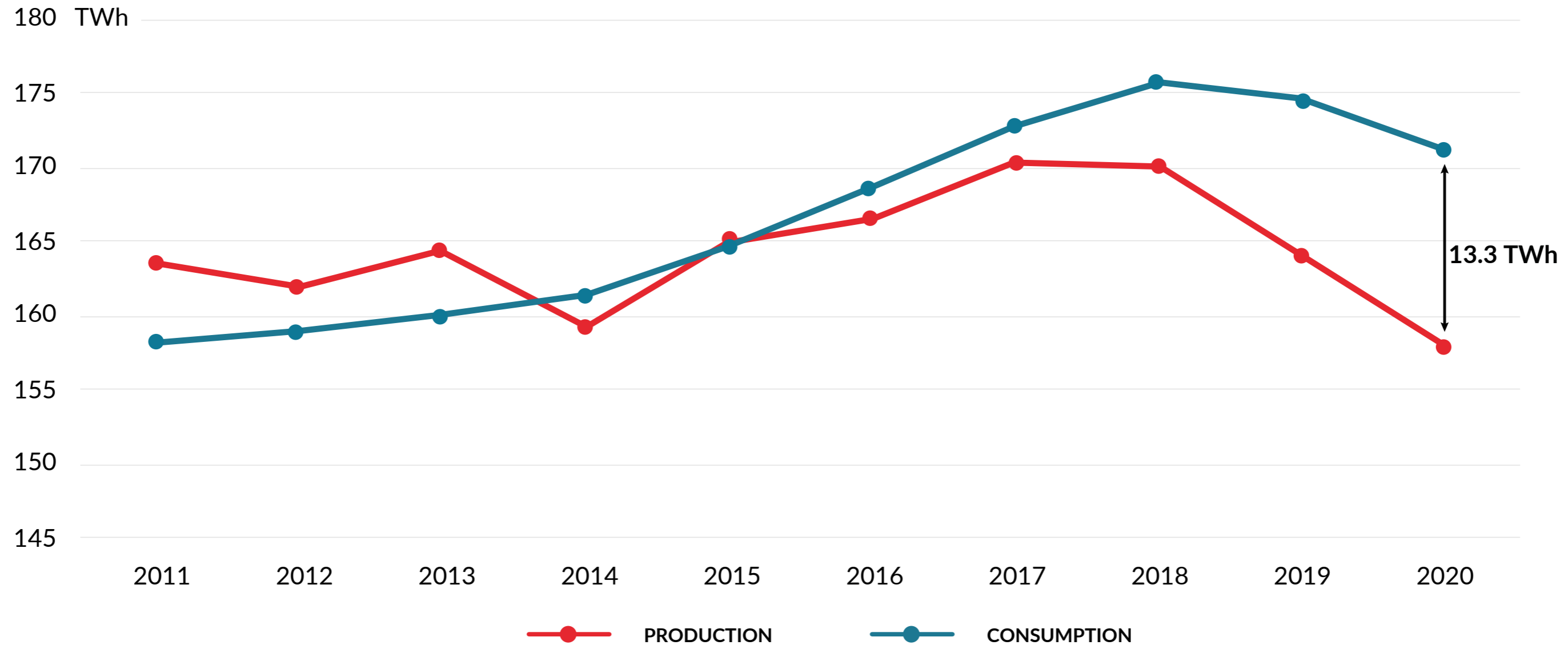


Electricity prices and trade balance

Comparison of SPOT prices of electricity on neighbouring countries' markets



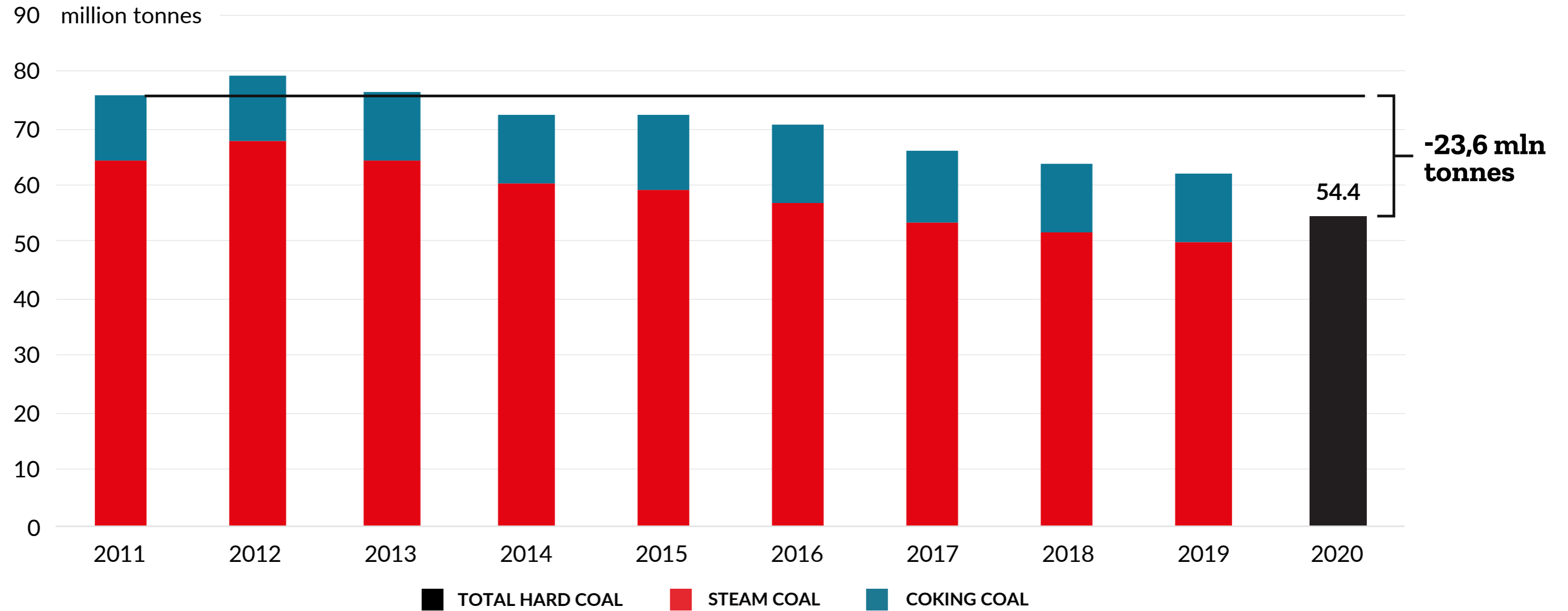
Balance of domestic electricity production and consumption



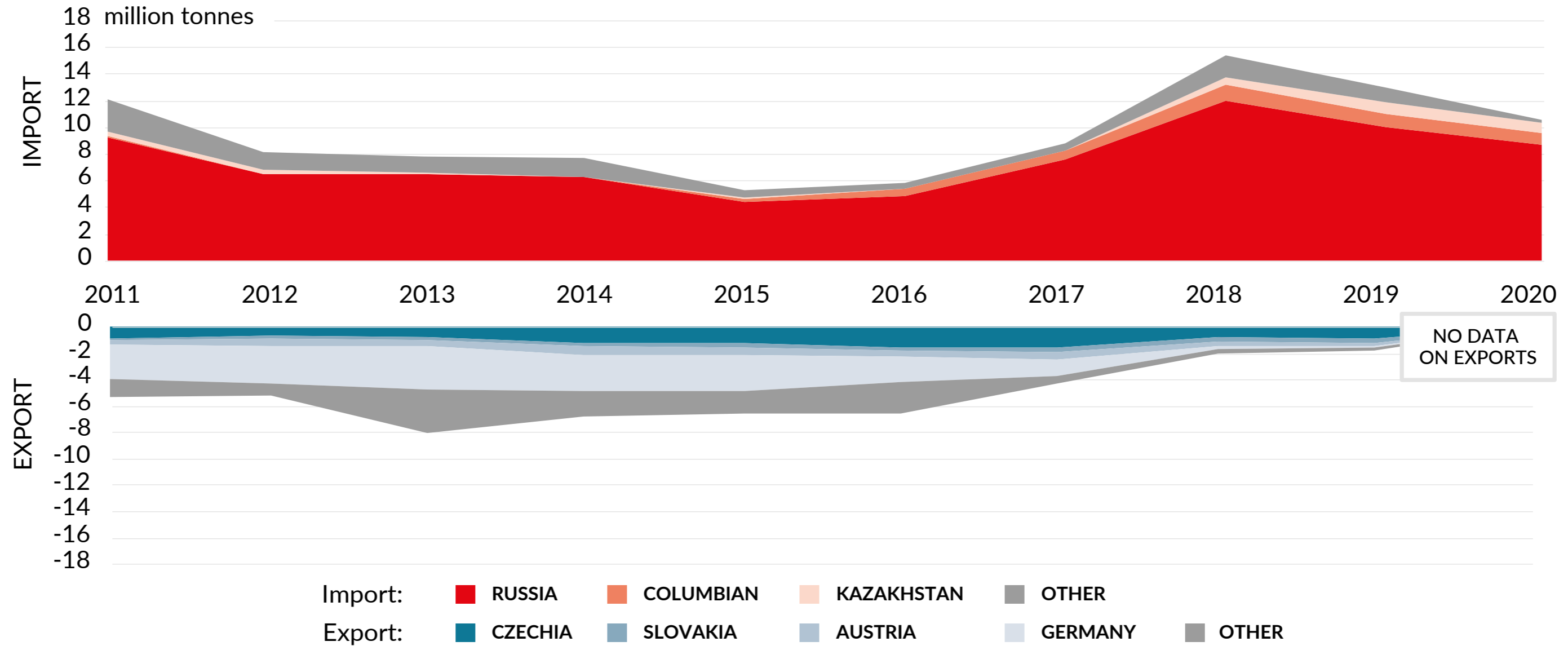
Source: based on data of ARE
Gross energy consumption shown

Coal and gas

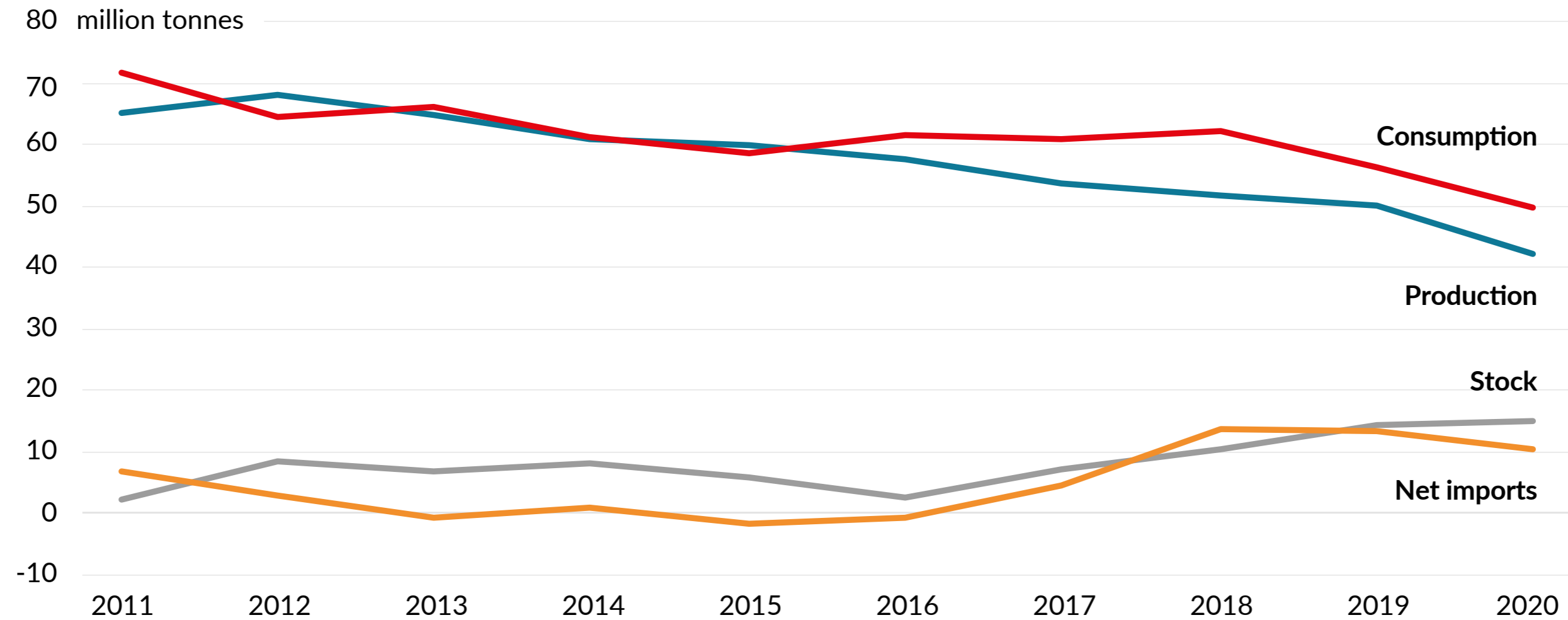
Domestic hard-coal production



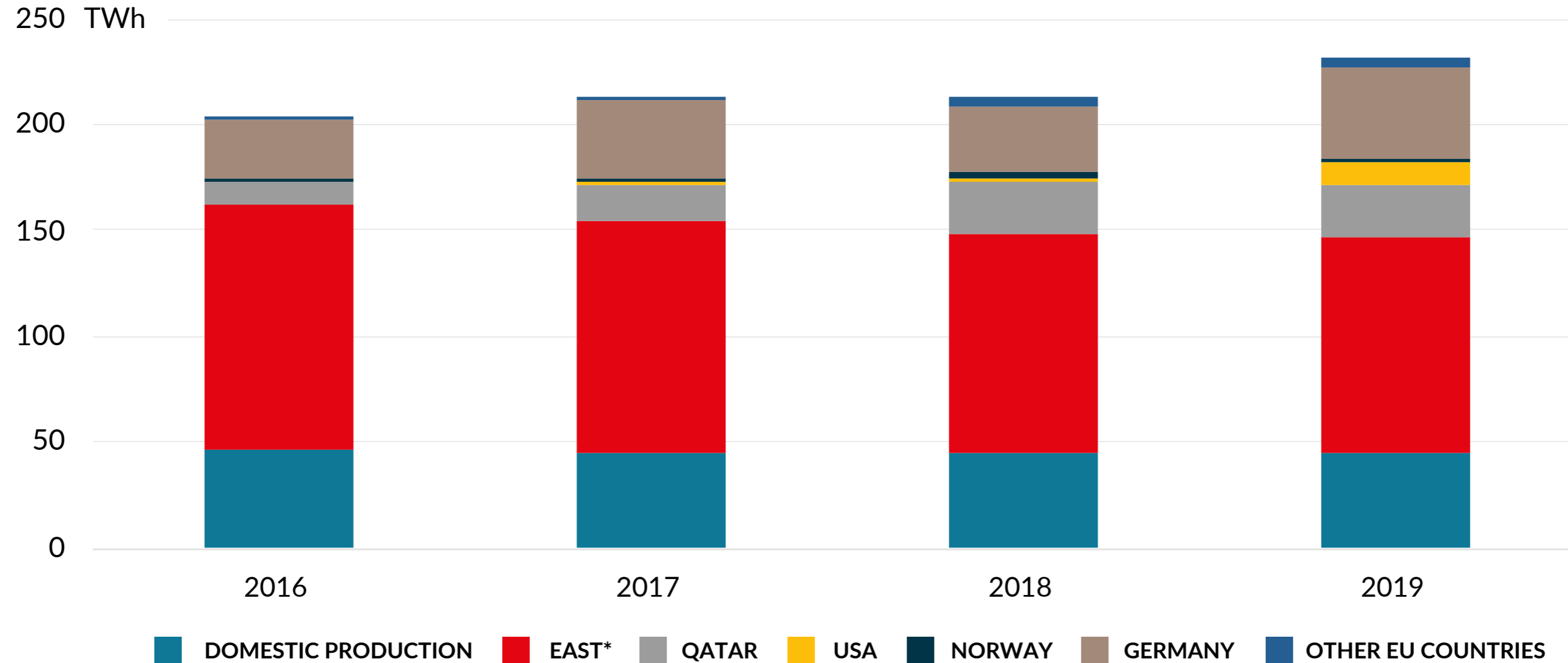
Trade balance of steam coal



Coal production and consumption in Poland



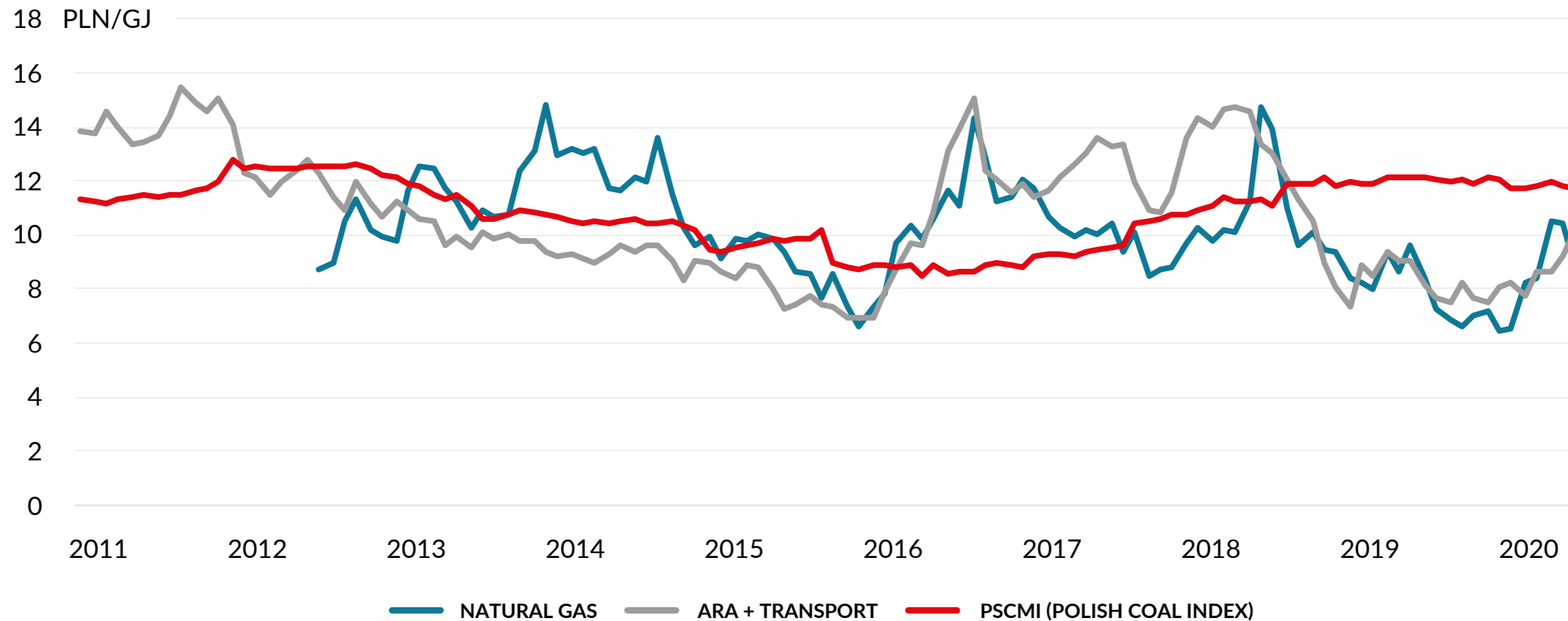
Supply of high-methane natural gas



Source: based on data of Ministry of Climate and Environment

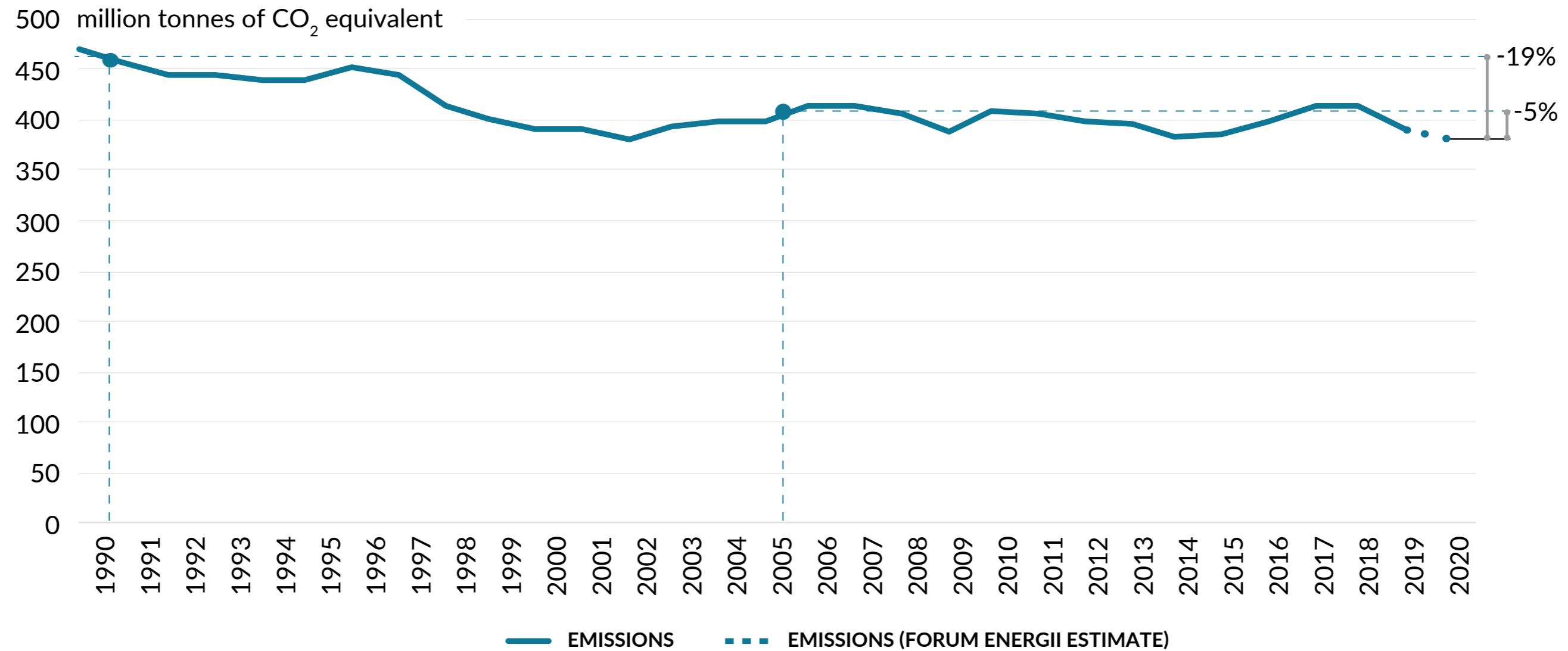
* category „East” appears in the source data

Steam coal and natural gas prices



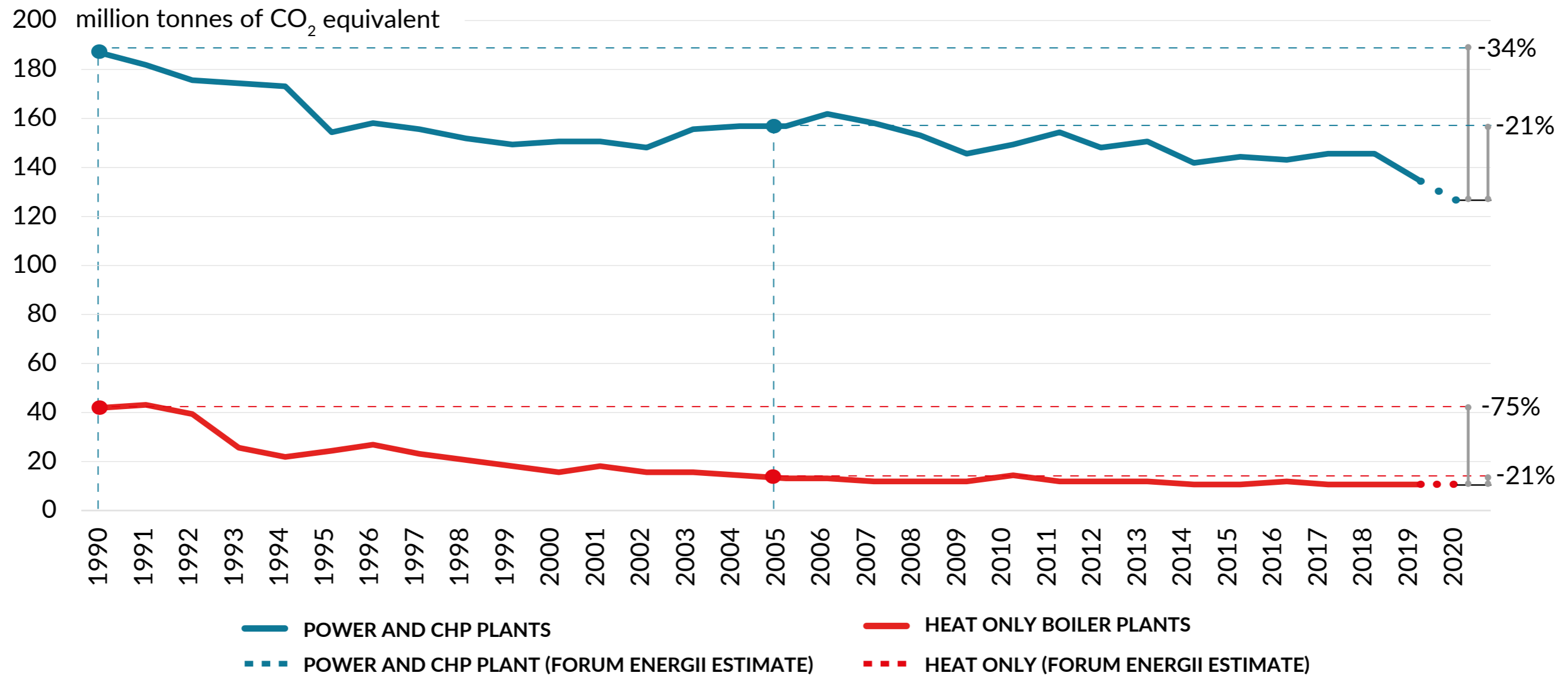
GHG emissions

Total national greenhouse gas emissions



Source: based on data of the European Environment Agency (EEA)
Greenhouse gases: mainly CO₂, methane, nitrous oxide

Power and heating sector greenhouse gas emissions



Main conclusions

- The share of coal in electricity generation fell below 70% in 2020.
- On the other hand, the share of RES increased thanks to prosumer photovoltaics and onshore wind power plants. There was also an increase in gas-fired cogeneration units.
- Installed photovoltaic capacity rose to 4 GW.
- Electricity generation declined by 3.8% and demand decreased by 2.1%.
- Net imports of electricity reached a record 13.3 TWh, accounting for 7.8% of electricity consumption in Poland.
- Both consumption and production of steam coal declined. Coal reserves increased, reaching 15 million tonnes at the end of 2020.

Thank you for your attention



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