Do renewable energies really help reduce fossil fuels?

A surge in renewable energies is taking place worldwide, notably driven by wind and solar. However, this low-carbon supply does not seem to extinguish our appetite for coal and other fossil fuels. Is this true?

Renewable energy is usually considered as the best substitute to fossil fuels in the energy transition. Yet, sceptics claim that the growth of renewable energies is not having the desired effect and doesn’t lead to less gas, oil, or coal being used. They challenge public support to wind and solar energies.

In reality, there are two conditions for renewables to effectively substitute fossil fuels. The first is a sufficiently fast development of renewable energy. It seems to be the case today worldwide. However it is a very recent trend and mostly in the electricity sector, thus not having full visible impact on the whole energy system yet. We need more years to see the actual change in the world energy outlook.

The second condition is the need for the global energy demand to stop increasing more than the amount of renewables that is added to the system. Moderating energy consumption is therefore required to see the share of renewables increasing more rapidly and changing the status quo.