

ENERGY CONSUMPTION OUTLOOK: GLOBAL INSIGHTS

Billie O’Heare-Young

Global fuel giant BP project that by 2035 global energy consumption increases by 37% from today’s levels, with virtually all (96%) the growth in non-OECD (Organization for Economic Cooperation and Development) countries and more than half coming from India and China.

- World energy demand is projected to be 37% higher in 2035 with India and China accounting for half the growth. By sector, inputs to power generation account for nearly 60% of the growth.
- Global energy intensity in 2035 is half of what it was in 1995 and 36% lower than 2013. However, global energy use per capita is projected to increase by 12%.
- The US becomes energy self-sufficient by 2021. And by 2035 could be exporting 9% of its total energy supply. Meanwhile, China overtakes the EU as the world’s largest importing country/region by 2025.
- Russia remains the largest net exporter of energy with net exports meeting 4% of world energy demand in 2035. Europe remains the largest importer of natural gas while China becomes the world’s largest oil importer.
- By 2035, over 70% of carbon emissions are produced from the non-OECD, although per capita emissions in the non-OECD are still less than half the OECD level. Total carbon emissions increase by 25%.
- Renewables (including biofuels) account for 8% of total energy consumption in 2035, compared to just 3% today.
- The fastest fuel growth is seen in renewables (6.3% p.a.). Nuclear (1.8% p.a.) and hydro-electric power (1.7% p.a.) grow faster than total energy. Among fossil fuels, natural gas grows the fastest (1.9% p.a.) with oil (0.8% p.a.) marginally ahead of coal (also 0.8% p.a. to one decimal place).
- Consumption of liquid fuels (oil, biofuels and other liquids) rises to 111 Mb/d by 2035, driven by non-OECD transport and industry.
- The US, Russia and Saudi Arabia supply over a third of global liquids output to 2035. OPEC’s share of the global liquids market in 2035 is 40%, the same as in 2013.
- Natural gas supply reaches nearly 500 Bcf/d by 2035, with the US accounting for nearly 25%. Increased usage in the power and industrial sectors account for over 80% of total demand growth.
- Coal demand growth in China and India combined is larger than global growth, more than making up for declines in the rest of the world. Jointly they account for 66% of total coal demand in 2035.
- China overtakes the US as the biggest nuclear producer with its share of the world total rising from 4% today to 30% in 2035.

“global energy use per capita is projected to increase by 12% in the 20 years to 2035.”