

WORLD ENERGY OUTLOOK 2014 FACTSHEET

What's in store for fossil fuels?

- ▶ **In the New Policies Scenario, demand for oil rises by 14 mb/d, to reach 104 mb/d in 2040, despite measures and policies aimed at promoting energy efficiency and fuel switching.** The pace of demand growth decreases markedly, from an annual average of 0.9% to 2020, down to only 0.3% per year in the 2030s, moving towards a plateau in global oil consumption. The net growth in demand comes entirely from non-OECD countries: for each barrel of oil eliminated from demand in OECD countries, two additional barrels of oil are consumed in the developing world. China becomes the largest oil-consuming country in the early 2030s.
- ▶ **The relative importance of non-OPEC producers increases this decade, but only the large producers of OPEC can meet long-term demand.** Output growth in the Americas, led by US tight oil, Canadian oil sands and Brazilian deepwater output, pushes non-OPEC production higher until the mid-2020s. However, a decline in US tight oil after this means that by 2040, non-OPEC supply falls back to 51 mb/d. OPEC production increases by less than 1 mb/d over the remainder of this decade, but then needs to increase substantially in the 2020s (by more than 6 mb/d) and by almost as much again in the 2030s.
- ▶ **The refining sector has to adjust to the new geography of oil demand and supply and the changing composition of feedstocks, a process that looks particularly difficult for Europe, which continues to have a large excess of refinery capacity.** By 2040, two out of every three barrels of crude oil traded internationally are destined for Asia, up from less than one in two today, drawing to Asia a rising share of the available crude from the Middle East and beyond.
- ▶ **Global gas use continues to grow, with demand of 5.4 tcm in 2040 – meaning that gas draws level with coal as the second-largest fuel in the global energy mix, after oil.** The main regions pushing global gas demand higher are China, which becomes a larger gas consumer than the European Union around 2030, and the Middle East. Within the OECD, US gas demand grows to 900 bcm by 2040, while in Japan consumption falls back as nuclear reactors are gradually restarted. Gas consumption in Europe returns to 2010 levels only in the early 2030s, with the outlook likewise heavily contingent on policy action, notably on CO₂ pricing.
- ▶ **Gas production increases in every major region except Europe.** Unconventional gas accounts for almost 60% of the growth in global production, helping China to register the fastest gas output growth among the major producers. The United States remains the largest global gas producer, although production tails off in the late 2030s as shale gas output starts to fall back. The way that gas will be priced on domestic and international markets is a key uncertainty, with the challenge of finding a price level and pricing mechanisms acceptable to consumers but nonetheless sufficient to incentivise large new investments in gas supply proving challenging.
- ▶ **Coal demand growth is driven by the stringency of carbon policies.** In the New Policies Scenario, demand grows on average by 0.5% per year between 2012 and 2040 (compared to 2.5% over the past 30 years) to over 6 350 million tonnes of coal equivalent. Almost two-thirds of the increase occurs in the next ten years. The outlook for coal varies significantly by region. Demand declines in all major OECD regions, including the United States, where coal use for power plunges by more than one-third between 2012 and 2040. Growth in China's coal use also slows, with demand peaking around 2030. India, where demand continues to rise briskly, overtakes the United States as the world's second-biggest coal consumer after China before 2020.
- ▶ **Coal production gradually shifts further to Asia-Pacific.** China, India, Indonesia and Australia alone account for over 70% of global coal output by 2040, underscoring Asia's importance in global coal trade and pricing. With increasing trade and rising production costs, the average OECD steam coal import price moves up from current low levels (it averaged \$86/tonne in 2013) to over \$110/tonne in 2040.