

## Finland

With its lack of fossil fuel resources, Finland had an energy import dependency of 44.0% in 2017. Finnish energy policy thus aims to maximise energy supply diversity. One third of electricity production is from nuclear and Finland’s fifth nuclear reactor, a 1 600 MW EPR, is under construction at Olkiluoto with commercial operation by TVO scheduled for July 2020. In June 2015, TVO shareholders resolved not to proceed with plans for a second new unit at Olkiluoto. Locally produced peat (6.4 million tonnes in 2018) is used as a fuel, mainly at dedicated district heating plants and at combined heat and power (CHP) plants. Peat accounted for 4.8% of gross electricity generation in 2018.

Finland is one of the world leaders in renewable energy, especially bio-energy. Renewable energy sources provide over 40% of Finland’s total primary energy supply and accounted for over 35% of power supply in 2018. Nevertheless, coal and fossil gas remain important fuels for CHP and district heating plants in Finland. Coal’s share in conventional generation is falling. In 2018, gross electricity generation from coal was 6.6 TWh (9.4% of total), with an important contribution from the 565 MW Meri-Pori coal power plant at Tahkoluoto in Pori. The efficiency of heat and power production in Finland is very high; approximately one third of electricity is produced at CHP plants which operate with overall efficiencies of 80% to 90%. These plants are used widely by industry and for both district heating and cooling.

Annual coal imports to Finland were 4.0 million tonnes in 2018: 2.7 million tonnes of steam coal for energy production and 1.3 million tonnes of coking coal for the steel industry. Small quantities of coal are used by the cement industry. All coal is imported, steam coal entirely from Russia and coking coal mostly from North America.

Finland’s *Integrated National Energy and Climate Plan* is based on two government reports: the *National Energy and Climate Strategy for 2030* and the *Medium-term Climate Change Plan for 2030*. The strategy accounts for Finland’s special features, including its cold climate, long transport distances, extensive energy-intensive industry and domestic raw material resources, especially forest biomass. To implement the strategy, Finland has taken many measures, in particular energy-efficiency and energy-saving measures, and plans to increase the share of renewable energy in final consumption to 50% by 2030. As well as the increased share of renewable energy, the government aims to maintain the position of peat as an indigenous energy resource, but to diminish the share of fossil fuels, in particular coal. Therefore, the government has tabled legislation to ban coal use for energy from 1 May 2029, except when used as an emergency backup fuel. Many coal-fired power plants are already phasing out of coal.