

## Finland

The *OECD Inventory of Support Measures for Fossil Fuels* identifies, documents and estimates direct budgetary support and tax expenditures supporting the production or consumption of fossil fuels in OECD countries and eight large partner economies (Argentina, Brazil, the People's Republic of China, Colombia, India, Indonesia, the Russian Federation, and South Africa).

### Energy resources and market structure

Finland has no known resources of coal, crude oil or natural gas. As a result, around 71% of Finland's energy needs are met through imports, mostly from neighbouring Russia. Energy intensity and energy consumption per capita are both very high due to the country's relatively large heavy industry and its cold climate.

The country does boast 9.3 million hectares of peat lands. Peat fuels between 5% and 8% of the country's electric power production (3 to 3.4 TWh per year), depending on the year, and over 20% of the fuel used to produce district heating.

Finland's energy market is dominated by a few large companies with ownership ties to the state, and the private sector's role being relatively smaller than that of other OECD countries. For example, the government has a 50.1% stake in Vapo Oy, the world's largest peat producer. Due to the increased share of wood-based fuels, the share of peat in Vapo's business, the dominant fuel since the 1980s, has however been declining, however, comprising only 30% of the firm's turnover in FY 2014/15.

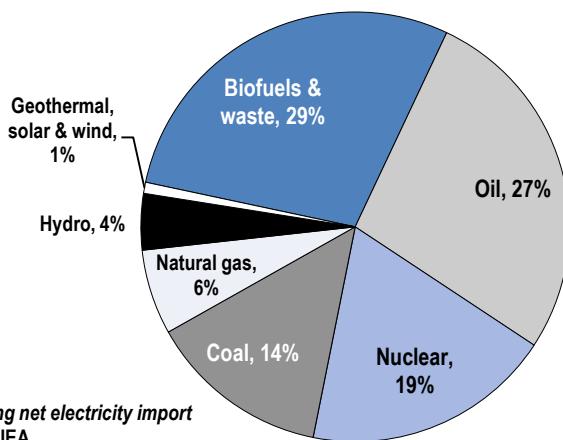
In a similar vein, the state maintains a 50.1% controlling interest in Neste Oil, which dominates the Finnish petroleum market. Although refined petroleum products are Neste's core business, the company also produces and distributes biofuels (mainly based on palm oil) along with other types of domestic and imported biomass. The natural-gas market is dominated by Gasum, in which the state owns 26.5% of its shares. Gasum owns the 1 200-km gas-transmission network with its entire gas supply coming solely from Russia. The company has a diversified portfolio, including gas-fired power plants, and has recently ventured into supplying biogas for transport use.

Finland's retail electricity market is fully liberalised and customers are free to choose their supplier. Grid companies have an obligation to connect customers, i.e. access for small independent electricity producers is guaranteed. Monitoring occurs through the Energy Authority (*Energiavirasto*), which oversees electricity and natural gas markets in Finland.

### Energy prices and taxes

The country's retail and wholesale electricity prices are unregulated. Electricity can be traded through bilateral contracts and via the Nordic and Baltic power exchange Nord Pool. Finland has a comprehensive set of energy-taxation rules imposed on electricity, coal, natural gas, peat, biofuels such as tall oil, and liquid fuels. Rates are based on a fuel's energy content, carbon dioxide emissions and an emergency stockpile fee with the energy-content part given the greatest weighting in the calculation. The emergency stockpile fee is

Total Primary Energy Supply\* in 2016

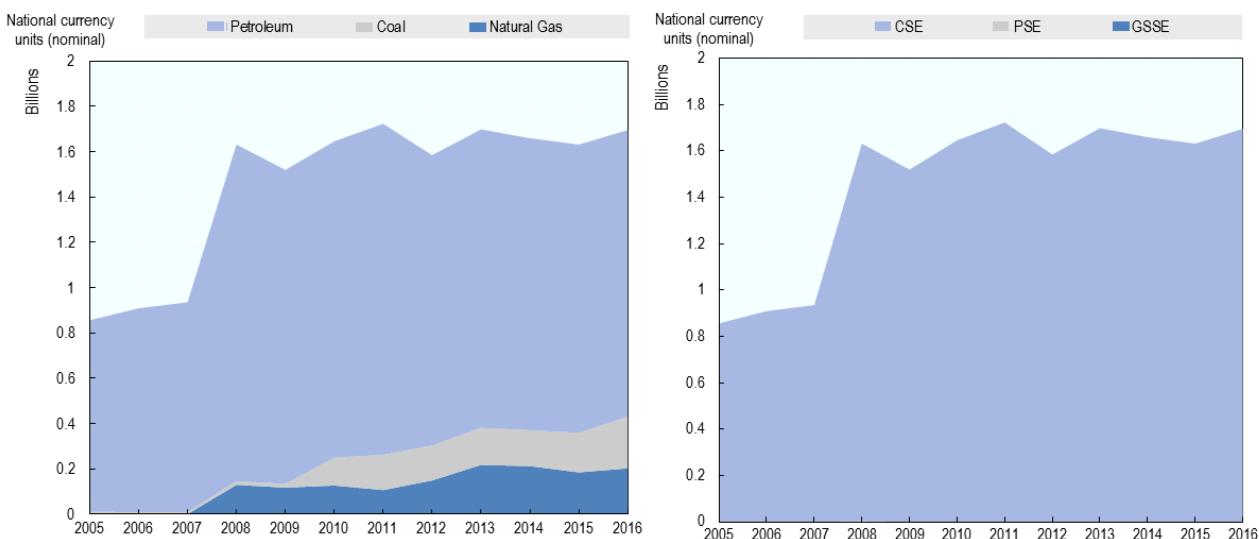


\*excluding net electricity import

Source: IEA

levied on liquid fuels, electricity, coal and natural gas to cover expenses as a result of complying with international stockpiling obligations.

### Total support for fossil fuels in Finland by fuel type (left) and support indicator (right)



Note: CSE=Consumer Support Estimate; PSE=Producer Support Estimate; GSSE=General Services Support Estimate.

### Recent development and trends in support

In 2011, Finland completely reformed its energy taxation structure on fuel for transport and heat and power plants, and as a result taxes on different energy sources are now determined based on their energy content and the level of carbon dioxide emissions. Following the 2011 reforms, many tax expenditures related to energy have been halted or terminated.

However, peat has been an exception to this rule, and is subjected to a separate energy-tax regime that assigns a smaller energy tax rate on a per-unit-of-energy basis than for coal or natural gas. The energy tax levied on peat, which only started in 2011, was anticipated to increase from EUR 1.9/MWh in 2012 to EUR 5.9/MWh in 2015. However, the maximum tax rate was not implemented as scheduled, and instead the government rolled back the peat energy tax rate to its pre-adjustment level in 2016. Peat used in power plants that generate less than 5 000 MWh a year continues to be exempt from the energy tax.

The electricity generated from peat in condensing power plants was previously supported through a feed-in tariff, with Finland being the only country to pursue this type of support normally allotted for renewable energy sources. The peat feed-in tariff was paid by the national transmission grid, Fingrid, which then passed it on to its consumers. This measure ended in 2010.

### Examples of measures

<b>Energy-Tax Rebates for Certain Fuels Used in Agriculture</b> (2005-)	This measure provides the agricultural sector with an energy-tax rebate on its consumption of light and heavy fuel oil, and electricity. First introduced in 2006, its scope was increased in 2011 when reduced rates were applied to biofuel oil used for heating. Latest figures put this support at EUR 33 million in 2016.
<b>Reduced Energy-Tax Rate for Light Fuel Oil Used in Mobile Machinery</b> (1958-)	This measure pertains to the reduced energy tax applied to light fuel used in mobile machinery. Since 2011, the reduced rates are evaluated based on energy content and CO <sub>2</sub> emissions. Latest figures in 2016 show EUR 451 million worth of foregone revenue as a result of reduced tax rates under this measure.

