



ESTONIA: INVENTORY OF ESTIMATED BUDGETARY SUPPORT AND TAX EXPENDITURES FOR FOSSIL-FUELS

Energy resources and market structure

Estonia has relatively large supplies of fossil energy in the form of oil shale and peat. Nonetheless, all of the country's gas needs and over 80% of its oil needs are imported. Oil shale dominates the fuel mix, contributing to about two thirds of the country's total primary energy supply (TPES) and covering about 90% of the energy used to generate electricity. Estonia is the only country in the world in which oil shale is the primary source of energy. Natural gas accounts for around 10% of TPES, and is mainly used for heat generation in power plants and boiler houses. Approximately 70% of Estonia's heating is supplied by district heating and half of the energy requirement for district heat production is covered by natural gas. Peat harvested in Estonia accounts for 1% of TPES and is mostly used for heat production in combined heat and power (CHP) plants. Non-fossil energy sources, mainly wood biomass, account for about 14% of TPES. Historically, firewood has been widely used for home heating. The use of wood chips and wood waste in district heat production has increased considerably since 2009 as one of the largest CHP plants in the country (Balti Elektriijaam) was converted to become wood-fired and three new wood-fired co-generation plants were opened in Tartu, Pärnu and Tallinn.

Estonia is actively promoting the development of renewable-energy sources, offering feed-in tariffs for renewable-based electricity. In 2009, non-fossil-based electricity accounted for about 6% of the country's electricity production. The country has a lot of potential to develop wind farms, both on- and offshore. A remarkable number of wind-farm projects has been initiated over the past few years. In 2009, Estonia opened the biggest wind farm in the Baltic states, Aulepa (40 MW).

Eesti Energia Kaevandused, a subsidiary of the state-owned electricity production group, Eesti Energia, dominates the production of oil shale. Due to the low calorific value of oil shale (the country's main fuel), the thermal efficiency of Estonia's electricity generating plants is very low. As a consequence, Estonia's per capita CO₂ emissions from electricity and heat production stood at almost 8.5 tonnes in 2009, which was high compared to the OECD average of 3.8 tonnes. Moreover, Estonia's economy is one of the most energy-intensive in the European Union despite considerable efforts to reduce the energy intensity since 1995. In 2008, producing one unit of GDP in Estonia required about three times more energy than in an average EU country.

The electricity market in Estonia is small compared to other EU countries. For historical reasons, Estonia is well interconnected with both Russia and Latvia as these countries used to be a part of the north-western common power system in the former Soviet Union. A direct interconnection to Finland was established in 2006, enabling access to the Nordic energy market (Nord Pool).

The opening of the electricity market began in 2009. In that year, large electricity consumers (accounting for 35% of the total annual electricity consumption in Estonia) were granted the right to buy electricity from the newly opened market. However, as prices in the regulated market were lower, such purchases did not initially take place. Since 2010, large electricity consumers have been obliged to buy electricity in the free market. In April 2010 Estonia joined the Nord Pool spot electricity market.

Electricity production in Estonia is dominated by the state-owned company, Eesti Energia. In 2009, its share of the wholesale electricity market was 90%, while its share of the retail market was 87%. Transmission was unbundled from production in 2010. The state-owned company, Elering, provides the transmission networking service, but also acts as the single transmission system operator. There are 38 distribution networks, the largest of which is owned by Eesti Energia, with 81% share of the distribution market.

The Estonian natural-gas market is controlled by a single formerly state-owned company, AS Eesti Gaas (EG), which is currently owned by Gazprom (37%), E.On (33.66%), Fortum (17.7%), Itera (9.9%), and various smaller shareholders. EG owns the transmission-system assets (the system operator being EG Võrguteenus, a wholly owned subsidiary of EG) and the majority of the distribution assets, and is currently the sole importer and wholesaler of natural gas. This situation will have to change in the future as in June 2012 Estonia's parliament approved legislation separating ownership of natural-gas sales from transmission operations from the beginning of 2015. In the distribution market, EG has a market share of about 92% and indirectly controls the remaining 8% by being the sole supplier to the natural-gas resellers. Natural gas is supplied under long-term contracts, which are due to expire in 2015. Since July 2007 the Estonian gas market has been fully opened to competition. However, as a result of past developments of the natural-gas market within the Baltic region, the current infrastructure does not allow gas purchases from elsewhere and the country is therefore entirely dependent on the natural gas supplied by Gazprom, both directly from Russia and indirectly through Latvia.

The oil market in Estonia is also fully open to competition. The wholesale market for liquid fuels is, however, concentrated in the hands of ORLEN Lietuva, the leading fuel importer and wholesaler. The majority of shares of ORLEN Lietuva (formerly known as Mazeikiu Nafta), which is based in Lithuania, is held by the PKN ORLEN, a major European oil refiner and petrol retailer from Poland. The retail market for liquid fuels is served by a number of companies, including Statoil and Neste, none of which is dominant. Shale oil is produced locally by three companies: the state-owned Eesti Energia Õlitööstus AS, and the privately-owned companies VKG Oil AS and Kiviõli Keemiatööstus OÜ. The majority (85%) of the country's oil production is exported, but shale oil is also used locally, primarily for heating purposes.

Prices, taxes and support mechanisms

The Estonian Competition Authority (ECA) is responsible for approving and reviewing fuel and energy prices, as well as for setting connection charges and the rates for transmission and distribution services of network operators. Until the full liberalisation of the electricity market, which is expected to take place in 2013, electricity is sold to most of the customers in the regulated market. Currently, most of the electricity for Estonian consumers is produced by the Narva power plant, which belongs to Eesti Energia. The ECA is responsible for approving the maximum electricity sales price in the regulated electricity market and controlling related costs. The ECA also sets the price of oil shale sold to the Narva power plant. Electricity-network charges are approved for a three-year period and adjusted annually.

Natural-gas prices in the wholesale market are negotiated and depend on prevailing market prices; they are not subject to approval by the regulator. Due to the market dominance of a single company, Gazprom, the sales margin added to the purchase is subject to approval by the state authorities and there is a limit set on it. Prices of oil, wood and peat are freely determined by the market. The maximum price for district heating in larger undertakings is set by the ECA.

Both value-added tax (VAT) of 20% and excise duty are levied on all energy products, except for peat and wood.¹ Apart from these exceptions, excise duties are applied to motor fuels, liquid fuels, solid fuels, natural gas and other energy products, at varying rates. Several exemptions and reduced rates are granted to specific users and for specific uses of fuel, e.g. in the agricultural and fishing sectors. Exemptions to the forestry sectors were

¹ The Alcohol, Tobacco, Fuel and Electricity Excise Duty Act that currently regulates the excise-duty rates levied on various fuels and electricity was introduced in 2008.

abolished at the end of 2011. Since 2008 an excise duty has been levied on electricity and since 2007 an additional renewable-energy fee has been imposed on electricity in order to finance subsidisation of renewable-based electricity and combined heat and power generation.

Local producers are subject to environmental charges when emitting pollutants into the air and water, when depositing waste, or when extracting mineral resources or abstracting water. Also, the state offers support to those companies that want to invest in making their businesses more energy efficient or environmentally friendly.

Data documentation

General notes

The fiscal year in Estonia coincides with the calendar year. Following OECD convention, amounts prior to 2011 are expressed as “euro-fixed series,” meaning that the fixed EMU conversion rate (1 EUR = 15.647) was applied to data initially expressed in the Estonian kroon (EEK).

Consumer Support Estimate

Excise-Duty Exemption for Fuels Used in Air Navigation (no data available)

An exemption from the excise-duty payments is applied to fuels used by commercial or state-owned aircrafts.

No estimates are available.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27.

Excise-Duty Exemption for Fuels Used as Inputs to Production (no data available)

Fuels (including natural gas) used for production of non-energy products are exempt from the excise-duty payments. Such uses include, e.g. production of glues, paints or in cleaning production equipment.

No estimates are available.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27, Estonian Tax and Customs Board (2011).

Excise-Duty Exemption for Fuels Used in Domestic Commercial Fishing (data for 2007, 2009-)

Since 2007 both diesel fuel and light heating oil used by domestic fishing boats are granted an excise-duty exemption. There is a limit imposed on the amount of fuel to which the exemption is applied, it is based on the amount of fish caught or the capacity of the boat’s engine.

The European Commission considers this measure to be State aid assisting small and medium enterprises and it has approved it until the end of 2013.

Sources: EC (2011); Excise Duty on Marked Fuel, Explanatory Memorandum of the 2010 State Budget, Explanatory Memorandum of the 2011 State Budget; Explanatory Memorandum of the 2012 State Budget.

Tag: EST_te_01

Excise-Duty Exemption for Fuels Used in Mineralogical Processes (no data available)

Liquid fuels and natural gas that are absolutely essential for conducting certain mineralogical processes have been exempt from the fuel excise duty since 2005 and 2008 respectively.

No data estimates are available.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27.

Excise-Duty Exemption for Shale Oil Used in District Heating (data for 2005-2010)

Oil shale used for heat production in district heating was not subject to excise-duty payments in the period between 2005 and 2010.

Although there are no data estimates readily available in government publications, the Statistical Office Estonia published enough information for estimates to be calculated using the revenue forgone method for the years 2005-2010.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27, Statistical Office Estonia.

Tag: EST_te_02

Excise-Duty Exemption for Shale-Derived Fuel Oil Used in District Heating (data for 2005-2007)

Shale-derived fuel oil used for heat production in district heating had been benefitting from a tax exemption until the end of 2007, when that excise-duty exemption was abolished.

Although there are no data estimates readily available in government publications, the Statistical Office Estonia published enough information for estimates to be calculated using the revenue forgone method for the years 2005-2007.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27, Statistical Office Estonia.

Tag: EST_te_03

Excise-Duty Exemption for Heating Fuels Used by Households (data for 2005-2010)

Shale-derived fuels and solid fuels used by households as heating fuels are all exempt from the fuel-excise duty. Although the law stipulates that solid fuels are exempt from the fuel-excise duty, this exemption does not apply to peat, as it is not encompassed by the fuel excise duty. Since shale-derived fuel oil is not used by households for heating purposes, the measure fully pertains to coal.

Although there are no data estimates readily available in government publications, the Statistical Office Estonia published enough information for estimates to be calculated using the revenue forgone method for the years 2005-10.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27, Statistical Office Estonia.

Tag: EST_te_04

Excise-Duty Exemption for Fuels Used in Stationary Engines and Warehouse Vehicles (no data available)

Those fuels that are used in stationary engines and vehicles that are used in warehouses (i.e. vehicles that are not allowed to drive on public roads) are exempt from the fuel excise duty.

No estimates are available.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27.

Excise-Duty Exemption for Natural Gas Used in Network Operation (no data available)

Since 2009, natural gas used for the purpose of operating natural gas networks is exempt from the excise duty normally levied on natural gas.

No estimates are available.

Sources: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27.

Excise-Duty Reduction for Diesel Fuel and Light Heating Oil Used for Special Purposes (data for 2005-2007 and 2009-)

Since 1997, a reduced rate of the fuel excise duty is applied to special uses of diesel fuel and light heating oil, for the purpose of which both diesel and light heating oil are marked with a special fiscal marker.

In the period between 2004 and 2011, marked diesel was used as fuel in rail transport of passengers and goods, water cargo, fishing vessels, stationary engines and for heating and in combined production of heat and electricity. In the same period, marked light heating oil was used as fuel in rail transport of passengers and goods, water cargo, fishing vessels, stationary engines, tractors and other machinery used in agriculture, forestry and construction, machines and vehicles that do not use public roads and in combined production of heat and electricity.

Since 2012, marked fuels can no longer be used in machinery used in forestry and construction. The government is planning to abolish marked fuel by gradually phasing out other uses of marked fuel.

Estimates for the period between 2005 and 2007 were provided by the Ministry of Finance using the revenue-forgone calculation method. Estimates since 2009 have been provided in the explanatory notes of the state budget, prepared by the Ministry of Finance.

Sources: Excise Duty on Marked Fuel, Explanatory Memorandum of the 2010 State Budget; Explanatory Memorandum of the 2011 State Budget; Explanatory Memorandum of the 2012 State Budget, Ministry of Finance.

Tag: EST_te_05

Reduced VAT Rate on Heating Fuels to Certain Consumers (no data available)

In the period between the beginning of 2000 and July 2007, a reduced rate of VAT of 5% was applied to heating fuels consumed by households, churches, hospitals, local-government buildings and state-financed organisations. The same reduced rate over the same period was also applied to peat, coal and firewood sold to households.

No estimates are available.

Sources: Estonian Value Added Tax Act §15.

Exemption from CO₂ Pollution Charge for Peat (data for 2006-2009)

In 2000, Estonia implemented a CO₂ pollution charge for large energy producers with total thermal capacity exceeding 50MW. The Environmental Charges Act that was approved in late 2005 extended the charge to all emissions from electricity and heat production.

During the period between July 2003 to June 2009, emissions from biofuels (and biomass since 2006), peat and waste combustion that were subject to the charge were all exempted from it. These exemptions were abolished at the end of June 2009 as they were deemed incompatible with the EU rules on State aid.

Although there are no data estimates readily available in government publications, the Ministry of the Environment and the Ministry of Finance published enough information for estimates to be calculated using the revenue forgone method for the years 2006-2009.

Sources: Environmental Charges Act §19(5), Pollution Charge Act §8(4).

Tag: EST_te_06

Compensation for Farmers and Fishers for an Increased Excise Duty on Diesel (data for 2005 and 2006)

In 2005, the fuel excise-tax rate on diesel used in agriculture and on board fishing vessels was increased from EUR 26.8 to 44.1 per 1 000 litres. In order to compensate farmers and fishers for this increase, the government decided to grant compensatory payments to farmers (in 2005) and fishers (in 2005 and 2006).

Those farmers that were recipients of the single area payments, as stipulated by the European Union's Common Agricultural Policy, were eligible for the compensatory payment amounting to EUR 0.0173 per litre of diesel used. A maximum of 125 litres could be claimed on each hectare of arable land. The total amount of compensatory payments granted by the government to farmers in 2006 amounted to EUR 0.65 million.

Those fishers who owned a commercial fishing permit were also eligible for the compensatory payments from the government. The value of the payment to each fisher was based on either the capacity of the vessel or the amount of fish caught. The total amount of compensatory payments granted by the government to fishers in 2005 and 2006 amounted to EUR 0.306 million and EUR 0.302 million respectively.

Sources: Ministerial Regulations No. 88 (08.08.2006), Nr 98 (28.09.2005), and No. 34 (20.03.2006); PRIA (2005, 2006).

Tag: EST_te_07

Feed-In Premium for Peat and Retort Gas Used in CHP Plants (no data available)

Since 2007 combined heat and power (CHP) plants that use peat or retort gas² in CHP generation are offered a feed-in premium of 32 EUR per MWh. The maximum period for which a CHP plant can obtain this support is 12 years.

No estimates are available.

Sources: Electricity Market Act.

Excise-Duty Exemption for Fossil Fuels Used for Electricity Production (no data available)

Since 2008, all fossil fuels normally subject to the excise duty have been exempt from it provided they are used for electricity production.

No estimates are available.

Source: Alcohol, Tobacco, Fuel and Electricity Excise Duty Act §27.

General Services Support Estimate

Direct Project Grants to Producers of Shale-Derived Oil (data for 2009-2010)

Over the past decade several environmental projects conducted by producers of shale-derived oil have received financial support from the Environmental Investment Centre.

Estimates are available for four environmental projects financed by the Environmental Investment Centre. Since the information on the amount spent per year was unavailable, the total value of each of these four projects is assigned to their starting date.

In the coming years, the state also plans to spend over EUR 35 million to finance the closing of oil-shale residual landfills in Kiviõli and Kohtla-Järve, as they do not meet environmental requirements. This project has to be completed before 16 July 2013.

Since this measure does not increase current production or consumption of shale-derived oil, it has been allocated to GSSE.

Source: Enterprise Estonia, Environmental Investment Centre; Structural Assistance Act for the period 2007-2013

Tag: EST_dt_01

Direct Project Grants to Oil-Shale Based Electricity and Heat Production (data for 2006-2011)

Over the past decade several projects conducted by producers of oil-shale based electricity and heat have received financial support from the Environmental Investment Centre or Enterprise Estonia.

² Retort gas is a by-product of pyrolysis that occurs when oil shale is heated to a high temperature in the absence of air.

Data estimates are available for seventeen projects — either environmental projects financed by the Environmental Investment Centre or development projects financed by Enterprise Estonia (the information provided is not specific enough). Since the information on the amount spent per year was unavailable, the total value of each of these projects is assigned to their starting date.

Since this measure most likely does not increase current production or consumption of shale-derived oil, it has been allocated to GSSE.

Sources: Enterprise Estonia, Environmental Investment Centre.

Tag: EST_dt_02

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