Estonia

Energy and CO_2 taxes

Responsible authority: Ministry of Economic Affairs and Communications
Managing authority: Tax and Customs Board (energy), Environmental Board (CO_2)

General information

Energy and CO_2 taxes: during the last year, the Estonian tax policy has centrally followed the principle that tax burden from taxation of income should be transferred to taxation of consumption, use of natural resources and pollution of the environment. In Estonia, the excise duty is imposed on the following energy carriers: electricity, natural gas, common and aviation gasoline, kerosene, diesel fuel, light and heavy fuel oil, oil shale heating oil, liquefied gas, oil shale, coal, lignite and coke. Aim of the excise duty is to reduce energy consumption and mitigate climate change.

In addition, a thermal energy generator pays the pollution charge for the CO_2 emission based on the quantity of CO_2 emitted (rate of 2 euros per tCO_2). The aim is to motivate thermal energy generators to use less CO_2 intensive fuels.

This is implemented via Alcohol, Tobacco, Fuel and Electricity Excise Duty Act, Environmental Charges Act and Taxation Act of 2013. Results are measured in annual end-use savings (ktoe).

New annual savings achieved in 2016: 76.47 ktoe. Total annual end-use savings achieved in 2016: 178.47 ktoe. Expected savings by 2020: 533 ktoe. Estonia will extend these excise duties after 2020.

Organization and MRV

Institution responsible for achieving 2020 energy efficiency targets and reporting to the European Commission is the Ministry of Economic Affairs and Communications (hereafter – the Ministry). The Ministry is also responsible for preparing and adopting the required legislation. Since the energy efficiency targets are largely met through alternative measures, the State ensures that reports on the impact of these measures are submitted by authorities engaged in implementing them. For the energy and CO_2 taxes: the Tax and Customs Board and the Environmental Board, who is also responsible for collecting CO_2 pollution charge.

Data for impact evaluation is collected by authorities implementing the alternative measures. They ascertain the impact of the measures using their chosen evaluation methodologies, and forward the information to the Ministry. Reporting is done by submitting annual progress reports. Progress reports include energy savings achieved annually and their expected savings by 2020 for all alternative measures.

Making a number of assumptions about the price of energy, final energy consumption, tax rates and the temporal constancy of the price elasticity coefficient, the potential energy savings in the final consumption of energy are calculated for the period 2014–2020.

Sectoral coverage

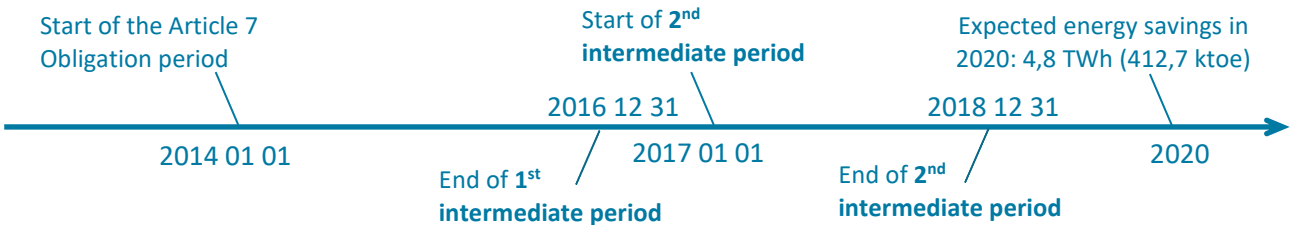
This measure is directed towards all energy carriers, thus affecting everyone that uses them and has an impact on all economy/ all sectors.

About energy subsidies for legal entities, Estonia has gradually reduced them: excise duty exemption for diesel fuel used in the inland fishing boats, mineralogical processes, and in agriculture; excise duty exemptions for natural gas used to keep the natural gas system operable, mineralogical processes; subsidy for electricity generation on the efficient cogeneration mode from peat or retorting gas of the oil shale processing.

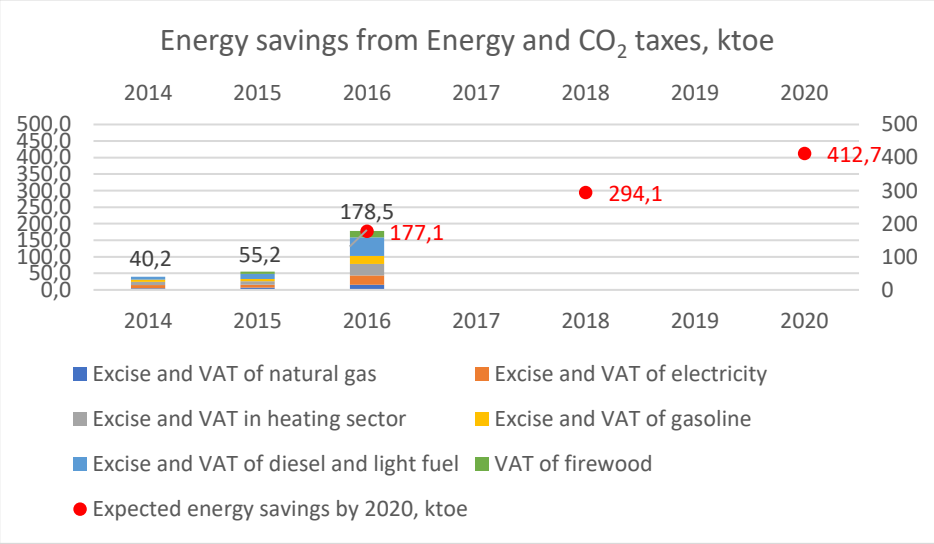
Costs and benefits

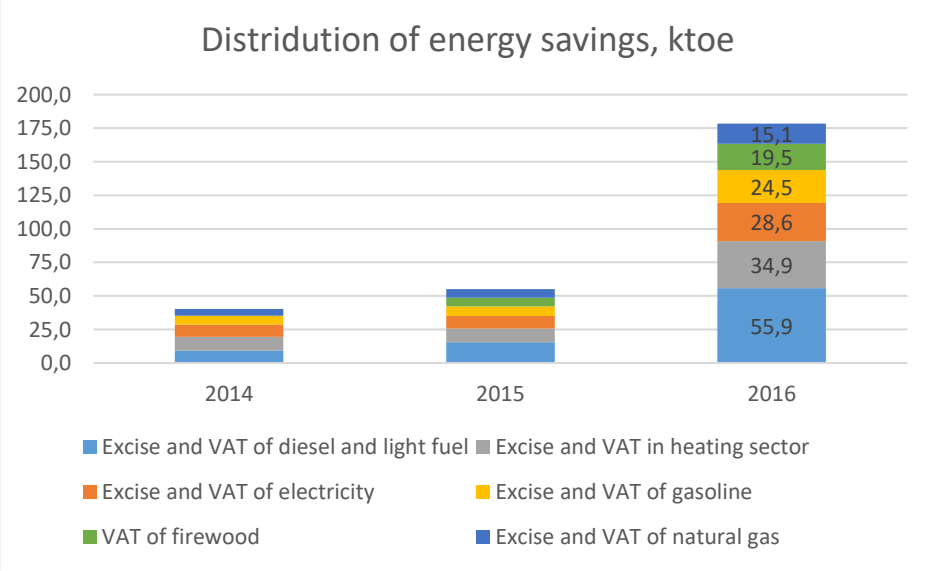
The measure Energy and CO_2 taxes does not have direct costs for the State. It generates additional income for the budget. The Ministry of the Environment annually allocates a certain share of all collected environmental taxes to achieve environmental goals, including the promotion of sustainable development.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 840034.



Form of energy	Price	Consumption volume (TJ)	Price elasticity coefficient	Estimated annual energy savings from taxation	Total savings in the period 2014–2020
Natural gas	11.90 €/GJ	5 113	-0.26	73.20 GWh	512.41 GWh
Electricity	0.11 €/kWh	25 202	-0.18	226.49 GWh	1585.41 GWh
District heating	57.09 €/MWh	16 560	-0.20	134.25 GWh	939.74 GWh
Petrol	1.29 €/l	11 067	-0.26	78.13 GWh	546.88 GWh
Light fuel oil, diesel	1.35 €/l	24 581	-0.26	167.75 GWh	1174.23 GWh
				TOTAL	4.8 TWh





Total achieved energy savings in 2016 amounted to 178.5 ktoe and reached the intermediate target of 177.1 ktoe set for this year.

Most of the savings – 31.3% – came from diesel and light fuel oil taxes, 19.6% from heating sector taxes, 16% from electricity taxes.

If these trends continue, Estonia will successfully reach its 2018 intermediate target and overall target of 412.7 ktoe (4.8 TWh) by 2020 for this measure.

Overview of the Estonian energy efficiency policy mix

(*measures presented in the NEEAP 2017, not limited to measures reported to Article 7*)

Transversal / cross-cutting

Energy and CO_2 taxes encompass excise duty and VAT on natural gas, electricity, fuels used for district heating, petrol, light fuel oil and diesel fuel and firewood. The energy savings achieved as a result of tax effects are not regarded as cumulative savings in the calculation method, i.e. the lifetime of a tax effect is one year.

Residential

Renovation of apartment buildings: https://kredex.ee/en/services/elamistingimuste-parandamiseks/renovation-grant-2019

Industry

Energy and resource efficiency in industries: https://www.kik.ee/en/supported-activity/energy-and-resource-efficiency-undertakings

Services

Renovation of street lighting: https://kik.ee/en/supported-activity/renovation-street-lighting-infrastructure

Renovation of public buildings: there was political will to commit to renovate a public bodies' buildings to meet the requirements of nearly zero energy building to popularize energy efficiency and set an example. The state when it invests in renovation of buildings always assesses whether energy efficiency will significantly improve. The State Real Estate Ltd acts as a central real estate developer that assesses energy efficiency indicators when planning investments. And lastly, since 2019 there is a central measure to support increasing energy efficiency in public bodies' buildings where the finances come from selling pollution allowances/ permits. https://kik.ee/en/supported-activities (energy section)

Transports

Promoting economical driving (including eco-driving).

Spatial and land-use measures for urban transport energy savings to increase and improve the efficiency of the transport system:

Improvement of the traffic system – Includes updating parking policies in cities, planning land use to reduce the use of private cars, restructuring the streets in cities, etc.

Reducing forced movements with personal vehicles in transport – Includes developing telecommunication and also developing short-term rental cars systems.

Development of convenient and modern public transport – Includes improving the availability of public transport, developing ticket systems and new services.

Increasing fuel economy in transport – Includes developing a support system for energy efficient cars, hybrid buses, hybrid trolleys, electrical buses etc.

Road usage fees for heavy duty vehicles – Based on time, location, environmental aspects, etc.

Increasing the share of biofuels in transport sector – The main target of this measure is to achieve the 10% share of biofuels in transport sector by 2020 and 14% by 2030.

As regards EED article 7, almost all energy savings (90%; 533 ktoe out of 592 ktoe) are expected to be delivered by the energy and CO_2 tax measures over 2014-2020. The remaining part is distributed between Renovation of street lighting – 5 ktoe; Energy and resource efficiency in industries – 18 ktoe; Renovation of apartment buildings – 32 ktoe; and Other investment support schemes (mostly in the public sector) – 4 ktoe.

Interview with Hanna Jemmer

Expert

Ministry of Economic Affairs and Communications, Energy Department

What have been the main changes in the policy in the recent years?

The resource efficiency measure (for industry) was cancelled this year.

What about MRV?

MRV will most probably be outsourced in the upcoming period, as both the EED Annex V and Governance Regulation Annex III require much more detailed and complex MRV that requires very high knowledge on energy sector dynamics analytics.

What success factors have you identified?

Public awareness of the measures is an important factor, this also means regular communication with stakeholders.

Are there interactions with other policies?

The measures cover environment, energy, transport, industry, rural development, buildings.

Are there any expected modification under discussion?

At the moment we expect to continue with similar measures. Perhaps some tweaks are in order but this will be analysed and discussed in more details in the future.

If you could go back in time, what would you do differently?

The take up of the resource efficiency measure should have been quicker, also the funding for different measures should be stable throughout the period.