

Energy efficiency trends in Latvia

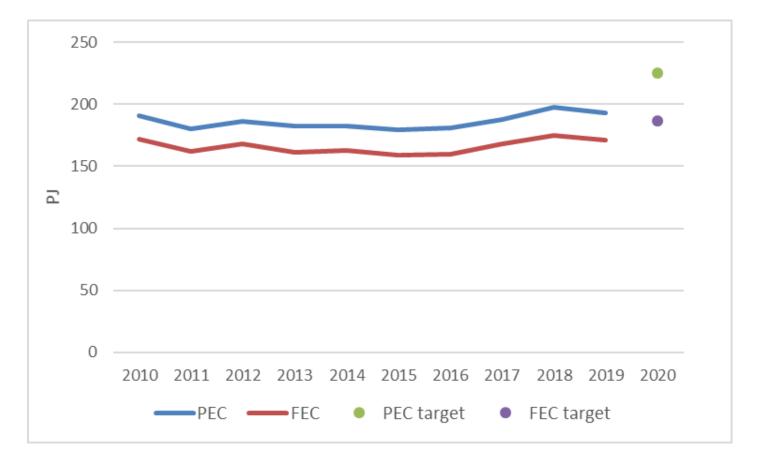
Gaidis Klāvs Institute of Physical Energetics

November 12, 2020 Second meeting of the project "ODYSSEE-MURE, Monitoring EU Energy Efficiency First Principle and Policy Implementation"

Overview

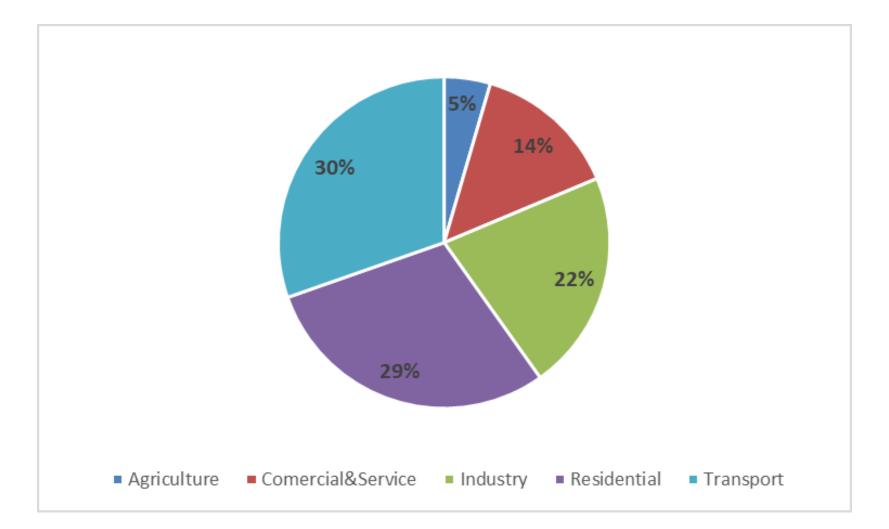
- Energy consumption development
- Energy efficiency trends
- Drivers of consumption variation

Primary energy consumption and Final energy consumption in Latvia

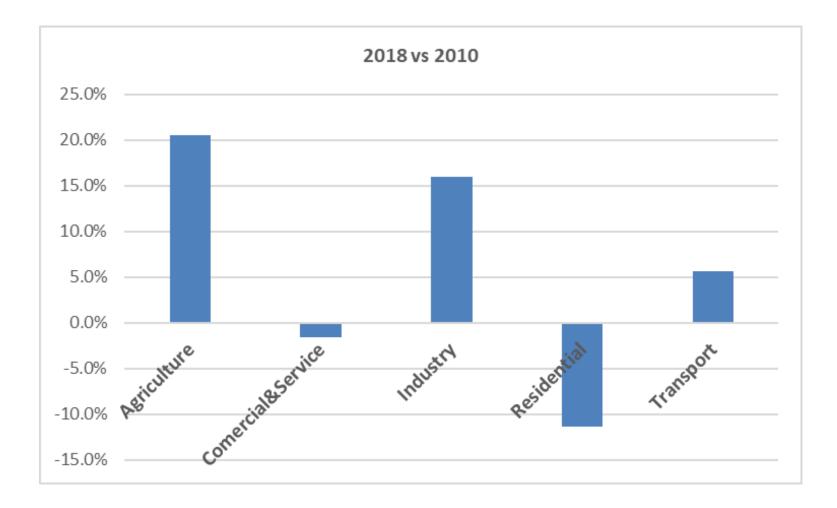


PEC (2019) is 14.2% below 2020 target; FEC (2019) is 8.5% below 2020 target

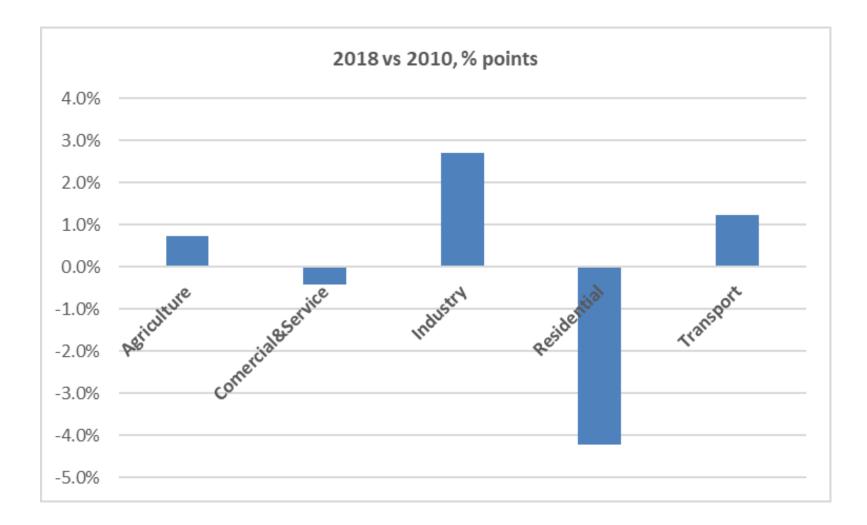
Final energy consumption (2018)



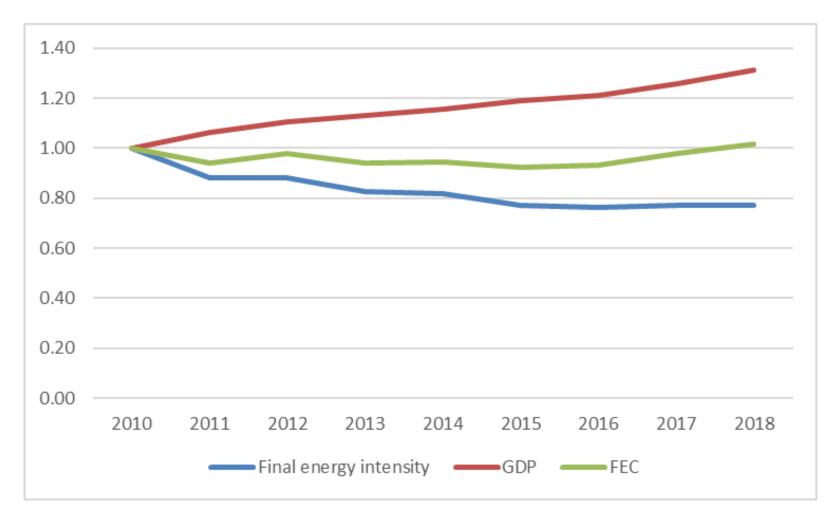
Changes in Final energy consumption by sectors (2018 vs 2010)



Changes in the structure of Final energy consumption (2018 vs 2010)

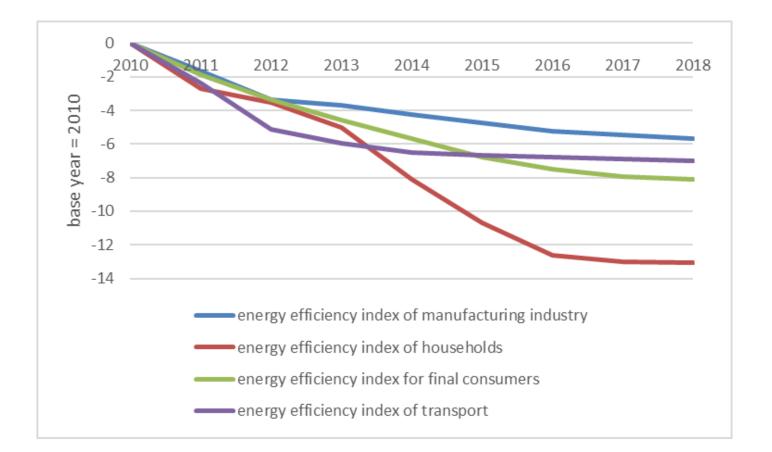


Final energy intensity



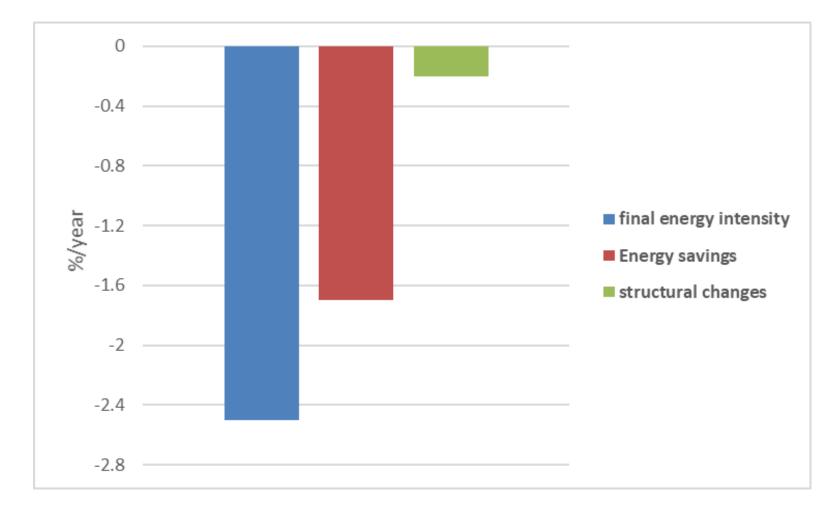
Final energy intensity decreased on average by 2.9%/year; GDP increased on average by 3.9%/year since 2010.

Energy efficiency index development



Energy efficiency index for final consumers, as measured by ODEX, improved by 1.0% per year; for households improved by 1.6% per year; for transport improved by 0.9% per year and for manufacturing industry improved by 0.7% per year since 2010.

Energy intensity and energy efficiency trends

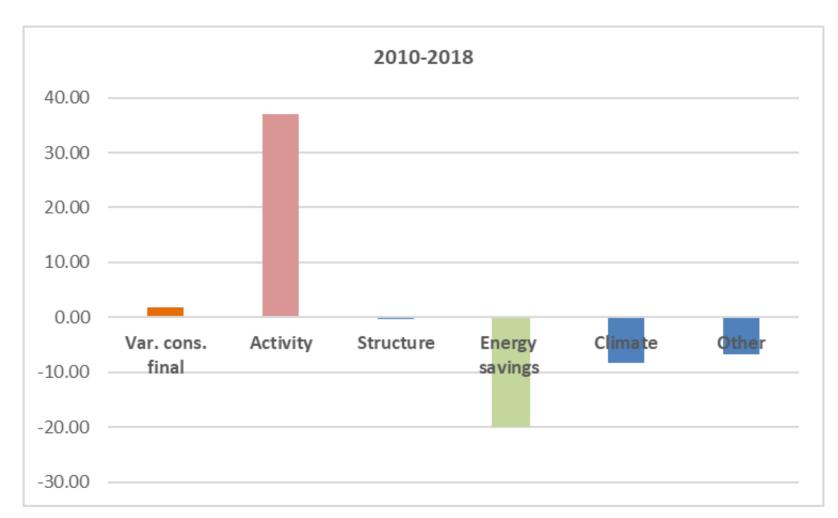


Energy efficiency explains most of the intensity decrease (around 70%) but not all; the remaining is explained by various structural and consumer behaviour changes

Methodological changes of the energy statistics

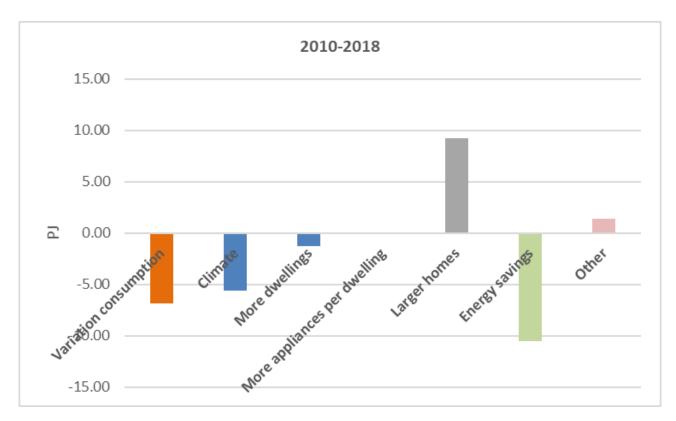
- In 2017, the Central Statistical Bureau applied new Net Calorific Value for firewood to calculate energy consumption from natural units (m³ solid) to energy units (TJ);
- The new conversion factor is approximately 15% higher than the one previously used. As a result, energy consumption in households in TJ increased by around 5%.
- This worsened energy efficiency index in households and reduced energy savings when compared to the years prior to 2017.

Drivers of Final energy consumption variation: 2010-2018



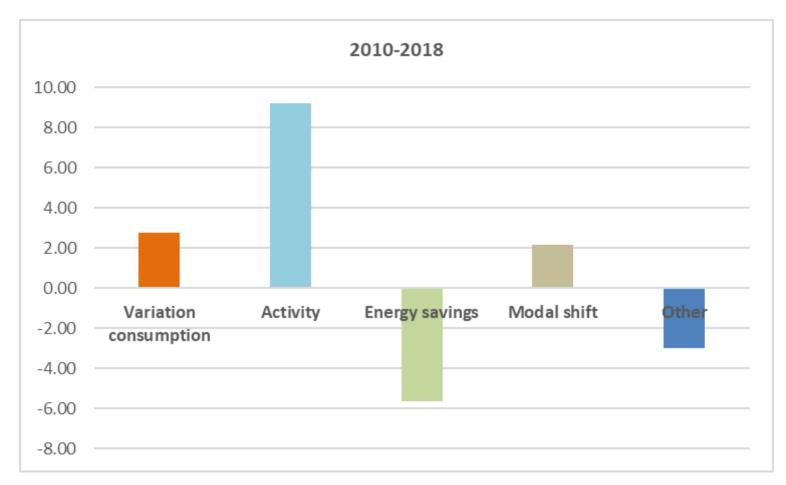
The final energy consumption has increased by 1.1%. The activity effect (mainly GDP growth) contributed to raise final energy consumption between 2010 and 2018 by 36.9 PJ; Energy savings partially offset the activity effect. The warmer climate in 2018 had a significant impact.

Drivers of Final energy consumption variation in households: 2010-2018



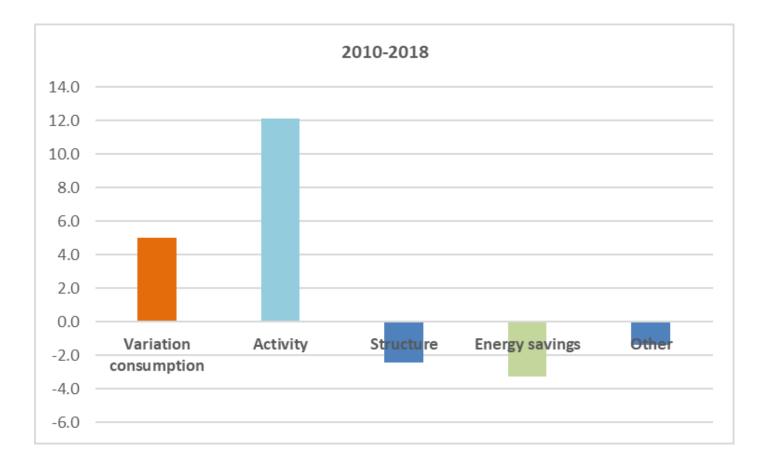
The final energy consumption of households has decreased slightly by 1.5%/year in the period 2010-2018. Larger homes effect (by 9.2 PJ) and consumer behavior (by 1.4 PJ) contributed to raise energy consumption. Energy savings totally offset the larger homes effect (-10.6 PJ). The warmer climate in 2018 had a significant impact (-5.6 PJ)

Drivers of Final energy consumption variation in transport: 2010-2018



The final energy consumption of transport has increased by 0.7%/year in the period 2010-2018. The main drivers for the increase is the growth in passenger and freight traffic (9.2 PJ) and shift from public transport to cars (2.2 PJ). Energy savings (-5.7 PJ) partially offset the activity effect.

Drivers of Final energy consumption variation in manufacturing: 2010-2018



The final energy consumption of industry has increased by 1.9%/year in the period 2010-2018. The main drivers for the increase is the growth in activity (12.1 PJ). Energy savings (-3.3 PJ) and structural changes (-2.4 PJ) partially offset the activity effect.

Thank you for attention!

energy@edi.lv