

Energy Efficiency Profile: Romania

August 2015

Overview

ODEX is the index used in the ODYSSEE-MURE project to measure the energy efficiency progress of the main sectors (industry, transport, households) and for the whole economy (all final consumers). The use of ODEX indicators in Romania has enabled the quantitative illustration of the energy efficiency policies.

As a result of all sectoral evolutions a global decrease in the ODEX indicator has been registered. By choosing 2000 as the basic year (100 %) the value of the Global ODEX indicator was 75 % in 2011. A value of ODEX equal to 75.7% means that the energy efficiency gained 24.3%. During 2000-2011, regarding energy savings, the largest savings have been made in the household sector, which represented 32.2 % of the total savings in 2011, followed by industry 32 %.

In the period 2000-2010 the energy efficiency index (ODEX) decreased by 20% at the level of the entire economy in Romania. The evolution was better than the European average (10%). Household and Industry sectors have contributed to this significant improvement.

Industry

The manufacturing industry has also had a favourable evolution. In comparison with the year 2000 (100 %) the ODEX indicator calculated as an index on three consecutive years decreased to 68 % in 2011. This means that energy efficiency gained 32%.

Household

The household sector has registered the most favourable evolution from the point of view of energy efficiency. By choosing 2000 as the basic year (100 %) the value of the ODEX indicator for this sector was only 67.8 % in 2011. This means that energy efficiency gained 32.2%. Energy efficiency improved by 30% between 2000 and 2010.

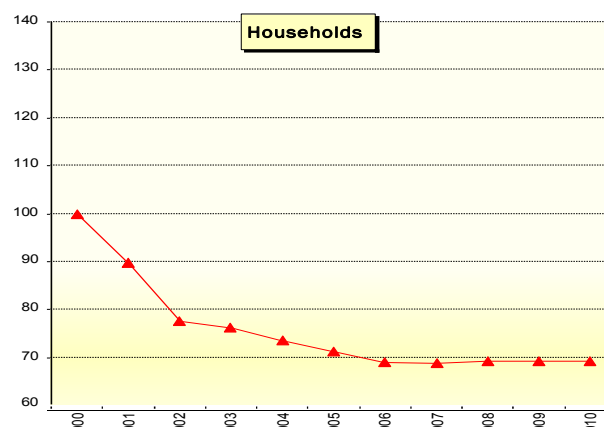
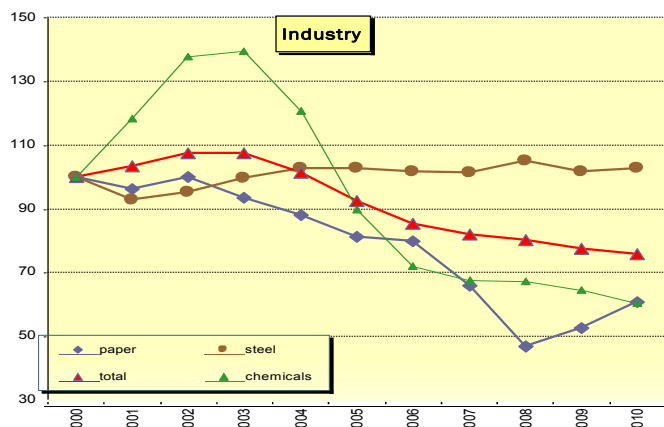
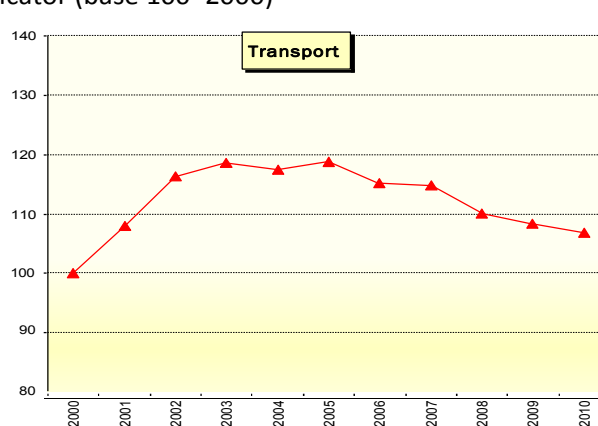
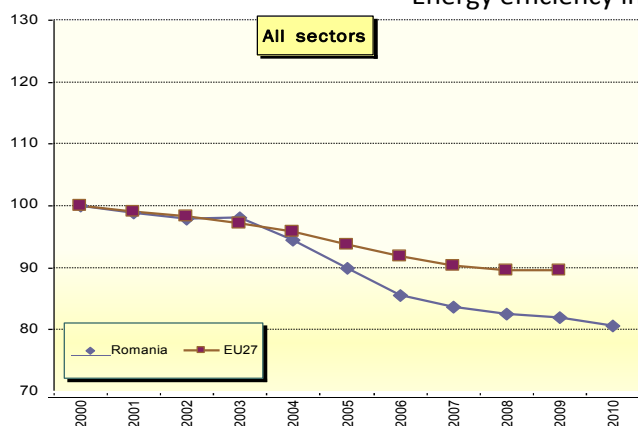
The evolution of energy consumption in the household sector and its efficiency were influenced by two divergent factors

- Initiation of political and technical measures for increasing energy efficiency (labelling of household appliances, thermal insulation of houses);
- Increase in the comfort level of population (introduction of air conditioning, increase in household appliances ownership).

Transport

The transport sector is in a less favourable situation from the point of view of energy efficiency. In comparison with the basic year 2000 (100 %), in 2011 the ODEX indicator value was 101 %, after being 108% in 2005. The descending trend registered in the last years is, nevertheless, promising. Since 2005 energy efficiency index had a decreasing trend, implying energy efficiency improvements (reaching around 11%). Previously, the energy efficiency index had been increasing between 2000 and 2003: such a trend was driven by a very high increase in activity (on the background of economic re-launching) that led to utilization of inefficient means of transport. The adopted measures led to performance improvement after 2003.

Energy efficiency indicator (base 100=2000)*



* Source ODYSSEE: <http://www.odyssee-indicators.org/>

Energy Efficiency Policy measures

Institutions and programs

In August 2014 entered into force the Law no. 121/2014 on energy efficiency. The Law transposes the European Union regulations set out under Directive 2012/27/EC regarding energy efficiency, into national legislation. The main purpose of this law is to establish a coherent legislative framework for the development and application of the national energy efficiency policy in order to achieve the national target for increasing energy efficiency.

The established measures for energy efficiency apply to: primary resources, production, distribution, supply, transmission and final consumption.

Law no.121/2014 on energy efficiency established, within ANRE, the Energy Efficiency Department. The Department is responsible with transposing the provisions of the law into secondary legislation.

Other institutions involved in the field of energy efficiency are the Ministry of Energy, Ministry of Economy, Trade and Tourism that implements government policy in the energy sector, including energy efficiency and renewable resources; the Ministry of Regional Development and Public Administration for the housing sector, the Ministry of Environment, Water and Forests, the Ministry of Internal Affairs, for local government, the Ministry of Transport, for the transport sector. These institutions are cooperating with ANRE. In 2014, Romania developed the third National Energy Efficiency Action Plan, according to the provisions of the Directive 2012/27/EC. Romania's national indicative energy efficiency target for 2020 is to save 10 million toe of primary energy, which represents a reduction of 19% in the volume of primary energy consumption (52.99 million toe) forecasted in the Primes 2007 model for the realistic scenario. Achieving this target implies that in 2020 primary energy consumption will be 42.99 million toe, while total energy consumption will be 30.32 million toe. The measures provided by the NEEAP III represented the basis for establishing 11 national EE Programs, grouped into **5 sectors**.

Industry

P6 – Energy audit and energy management - According to Law no.121/2014 on energy efficiency, the economic operators whose annual consumption surpasses 1000 toe must: **1.** appoint an energy manager authorized by ANRE or conclude an energy management contract with a natural or legal person accredited by ANRE **2.** carry out an energy audit every year developed by a natural or legal person authorized by ANRE and **3.** develop energy efficiency programs including measures on short, medium and long term. Financing of energy efficiency projects is done through the Romanian Fund for Energy Efficiency, and EEFF- Energy Efficiency Finance Facility (EEFF) - European funding program "fast track" - quickly used by private sector companies to invest in equipment, technology or rehabilitation of buildings in order to improve energy efficiency.

Households, Services

P7 - Program Energy Efficiency in the household sector - Coordinator: Ministry of Regional Development and Public Administration
Political Measures: **1.** Thermal rehabilitation of blocks of flats -Total Savings during 2014-2020: 0.544 Mtoe and **2.** Thermal rehabilitation of single-family houses - Total Savings during 2014-2020: 0.356 Mtoe.

Through the Romanian National Program for increasing the energy efficiency for the blocks of apartments were rehabilitated 1518 blocks of flats during 2009 – 2014 (from a total of around 85.000 blocks) representing 55.293 apartments, in order to obtain the heating annual specific consumption less than 100 kWh/m².

Transport

P10 – Scrapping Schemes - Political Measure: Car fleet renewal

Total Savings during 2014-2020: 0.294 Mtoe

Program to stimulate the national car park renewal with funding from the National Environment Fund budget
Romanian "Old Cars" Program Allows Loans, Leasing On For Purchases Romanian people who replace their cars through the car park renewal program "Old Cars" will be able to use leasing and lending to finance the purchase, according to an order by the environment minister, which also states that an owner can receive the bonus from the state for each vehicle scrapped.

According to the most recent statistics from the Ministry of Environment in 2008-2010, 251,793 cars were annulled by the "Car fleet renewal" and the new cars were bought using vouchers. A person could buy a new car using a maximum of three vouchers.

In 2011 Romania's government granted 456 million lei through the "Old Cars"; 120,000 cars were discarded and 39,216 new cars were bought using vouchers. The value of the program for 2015 is 200 million lei meaning 25,000 vouchers: 20,000 for individuals and 5,000 for the legal entities and institutions.

Energy prices and taxes

Since July 2010 the Government has increased the general VAT from 19% to 24%.

Selected Energy Efficiency Measures

Sector	Measure	From
Household	Energy Performance of existing Buildings-obligatory energy efficiency certificates	2007
	Thermal rehabilitation of residential buildings financed by bank loans with government guarantee	2010
Transport	Program to stimulate the national car park renewal for legal entities and liberal professions	2010
	Alternative Mobility	2014
	Modernization of urban public transport	2014
Tertiary	Inventory of central public administration buildings and making it publicly available	2014
Industry	Promoting the development of energy service companies – ESCOs	2008
	Energy Efficiency in industry framed in EU-ETS	2013
	The promotion of CHP's	2009

Source MURE - For more information <http://www.measures-odyssee-mure.eu/>

