Report from the Republic of Lithuania on the progress made in achieving national energy efficiency targets

Lithuania's report on the progress made in achieving national energy efficiency targets (hereinafter "the report") fulfils the requirements of Article 24(1) of, and Annex XIV Part 1 (a) to, Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency.

Lithuania, like most other European countries, is facing major challenges in three energy sectors: security of supply, competitiveness and sustainable development. Lithuania's situation has been determined by historical and political factors and the limited domestic energy resources available.

The bulk of the fuel and energy consumed in Lithuania is imported. Following the closure of the Ignalina nuclear power plant, Lithuania is no longer able to satisfy its electrical energy requirements competitively. Grids are not connected with Europe's electrical energy systems, so Lithuania can only import electrical energy from other countries. In the field of increasing energy efficiency, efforts are being made to renovate existing buildings, modernize their energy systems, increase the efficiency of energy production and consumption in the cogeneration and district heating sectors, in industrial processes, in the equipment used by undertakings, institutions and households for energy management and in transport, and to use renewable and waste energy resources in order to make the country less dependent on importing primary energy resources.

This report gives the basic indicators as per Annex XIV Part 1 (a) to the Directive (table 1) such as gross domestic and sectoral energy consumption, gross value added by sector, data on the number of inhabitants in the country, gross domestic product, households, electrical and heat energy generated, fuel consumption to generate this energy, energy losses during transport and distribution, etc. Figures are also given for district heat production and fuel consumption.

Gross domestic primary energy consumption rose by 3.4% between 2010 and 2011. Gross final energy consumption decreased by 1.5%, from 4 767.8 ktoe in 2010 to 4 696.0 ktoe in 2011. This downward trend is also reflected in the sectoral final energy consumption indicators (other than industry). In the industry sector, by contrast, the trend is upward. This growth has an impact on the gross final energy consumption indicator. The growth in final energy consumption in the industry sector was affected by the country's economic situation. The country's GDP grew in 2010, and changes in the country's macroeconomic indicators between 2010 and 2011 showed Lithuania's economy was recovering, with GDP growing by 1.5% and 5.9% respectively. In 2011 Lithuania's GDP was LTL 80.7 billion (chain volume, table 1) or LT 26 600 per capita.

The portion of GDP contributed by both the industry and service sectors increased between 2010 and 2011 (table 1). The gross output of industry grew as the economy recovered, the portion of GDP generated by industry rising from LTL 16 974 800 000 in 2010 to LTL 18 146 360 000 in 2011. As Lithuania's industry sector recovered between 2010 and 2011, industrial output posted an increase of 6.9%.

The increase in the number of households in Lithuania, from 1 389 000 in 2010 to 1 392 000 in 2011, was not significant. The disposable income of households was around LTL 2 500 (the statistics provider, Lithuanian Official Statistics, did not provide any data on the disposable income of households for 2011).

In descending order of importance, final energy consumers were as follows: in 2010 transport (33%), households (33%), industry (18%) and services (13%), and in 2011 transport (33%), households (32%), industry (19%) and services (12%).

For the country as a whole, in 2011 42.7% of the electrical energy was produced in cogeneration plants, whilst 68.9% of the total electrical energy produced in Lithuania was generated by district heating.

In 2011, 41.7% of the electrical energy used was produced domestically, 55.7% of this coming from cogeneration plants.

Table 1. Aggregate data for basic indicators.

Indicator	**2010**	**2011**
Gross primary energy consumption, ktoe	7 054.0	7 290.0
Gross final energy consumption*, ktoe	4 767.8	4 696.0
Final energy consumption – industry, ktoe	857.9	901.0
Final energy consumption – transport, ktoe	1 557.9	1 534.5
Final energy consumption – households, ktoe	1 593.6	1 525.4
Final energy consumption – services, ktoe	605.3	584.2
Gross value added by sector – industry**, LTL million	16 974.8	18 146.36
Gross value added by sector – services**, LTL million	55 576.24	57 309.66
Disposable income of households, LTL	25 768.8	-
Total number of households, thousands	1 389	1 392
Gross domestic product (GDP)**, LTL million	76 245.59	80 718.03
Electrical energy produced by cogeneration (electrical energy produced in thermal power stations), ktoe	316.3	231.4
Heating produced in thermal power stations, ktoe	376.2	347.1
Heat produced in cogeneration plants (including waste energy from industrial enterprises)*****, ktoe	539.5	469
Fuel consumption in thermal power stations, ktoe	485.7	430.2
Fuel consumption in cogeneration plants, ktoe	1305.7	1022.9
Transport and distribution losses, ktoe	236.4	216.9
Gross passenger kilometres (pkm), million km	5 180	4 101

Gross tonne-kilometres (tkm)***, million tonnes	33 414	37 199
Number of inhabitants, thousands	3 137.0	3 052.6
District heating production****, ktoe	842.9	756.3
Fuel consumption in the output of district heating****, ktoe	934.5	813.05

Figures supplied by the Lithuanian Department of Statistics

* Not adjusted for climatic conditions.

** Chain volume.

*** Not including transport by oil pipeline.

**** Additional data supplied pursuant to Regulation (EC) No 1099/2088 of the European Parliament and of the Council on energy statistics.

***** Including waste heat from industrial plants.

The national indicative target for energy consumption efficiency in the national energy independence strategy approved by Resolution No XI-2133 of the Lithuanian Parliament of 26 June 2012 (Žin. [Official Gazette] 2012, No 80-4149, hereinafter "the strategy"), expressed as a final energy saving from 2009 until 2020, is equivalent to 740 ktoe (17% of the final energy consumption for 2009). This assumption draws on the database of results of the study of energy saving potential in the EU Member States, candidate countries and EEA countries commissioned by the European Commission's Directorate-General for Energy (http://www.eepotential.eu/esd.php) and factors in a large State energy saving incentive. Once this target has been achieved, the final energy consumption in 2020 should be not greater than 5445 ktoe. Work is currently underway to update the strategy and scientific research is being carried out to correct the national indicative target for energy consumption efficiency.