

EUSUSTEL WP1 – Latvia

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1. Factual information

1.1 Geographical description

Latvia became independent in 1991 and joined both NATO and the EU in the spring of 2004.

Latvia is situated in Eastern Europe at 57°N, bordering the Baltic Sea. The climate is maritime with wet, moderate winters and an average yearly temperature of 6-7°C. The land area is 64,589 sq km of which 1,000 sq km is water.

1.2 Demographics

The population of Latvia is 2.29 million. 57.7% of population is Latvian, 29.6% is Russian, 4.1% Belarusian, 2.7% Ukrainian, 2.5% Polish and 1.4% Lithuanian. The capital Riga is Latvia's largest city with almost 800 000 inhabitants.

The population by age group is given in Table 1. The population growth rate is -0.69%.

Table 1. Population by age group in Latvia.

	Unit	2005
Population	1000	2290
0-14 years	%	14.4
15-64 years	%	69.4
65 years and over	%	16.1

1.3 Economical situation

The GDP in 2004 amounted to \$26.53 billion or \$11,500 per capita. The GDP is composed of services (70.8%), industry (24.8%) and agriculture (4.4%). The GDP growth rate is 7.6%. The GDP growth is shown in figure 1.

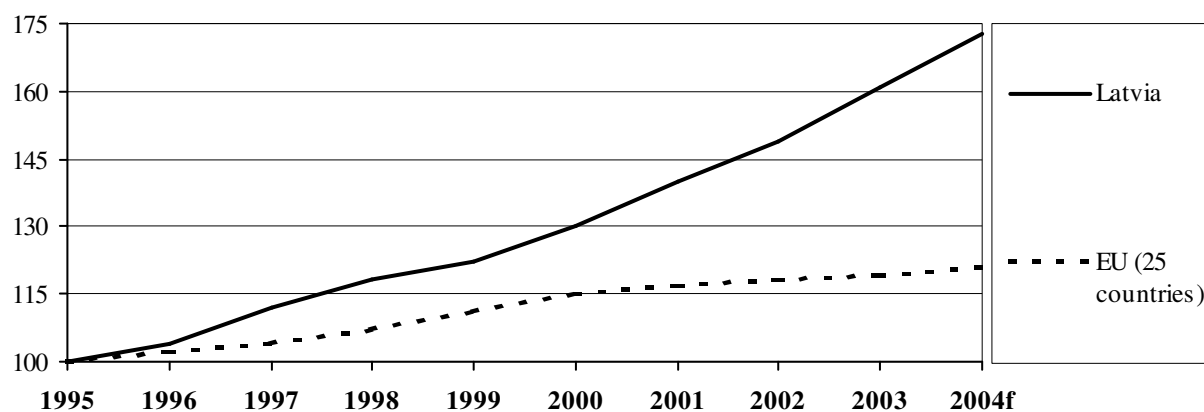


Figure 1. GDP Growth in Latvia and EU-25 (Ministry of Economics) (in per cent, 1995 = 100%)

1.4 Energy

Latvia is very dependent on energy imports as it lacks indigenous resources. About 80% of primary energy sources are being imported, mostly from Russia. Imported energy sources include coal, natural gas and oil products. Mainly natural gas and heavy oil are used in heat generation. Local energy sources, wood and peat, are used to supplement imports for domestic electricity and heat production.

The TPES in 2002 was 4.27 MToe. The structure of energy resources was dominated by oil products with 36%. Next come biomass with 31% and gas with 26% share. Hydropower generated some 5% of the total.

In the Latvian energy sector, electricity and gas supply as well as combined heat and power generation are regulated because monopolies operate in these areas.

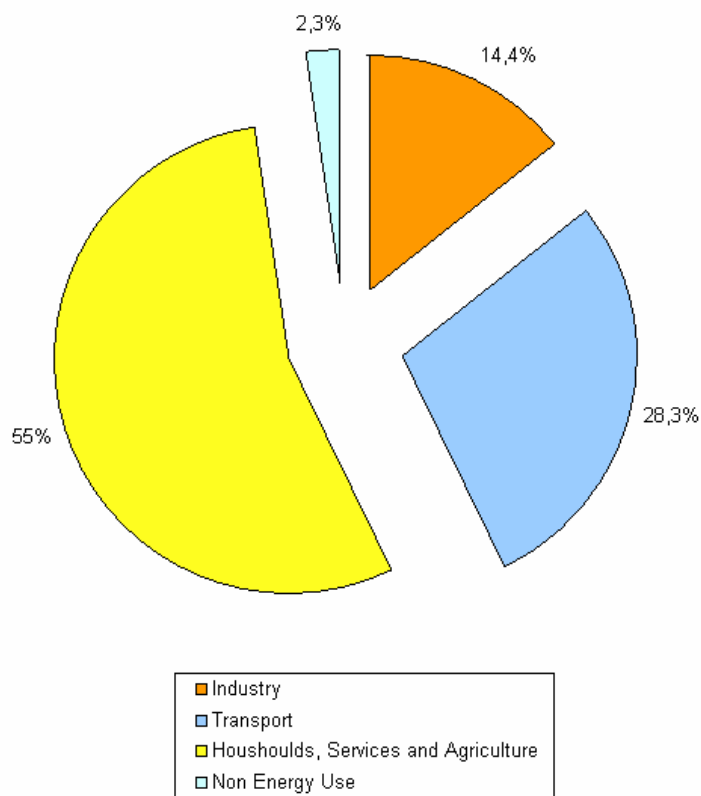


Figure 2. Final energy consumption per sector, 2002. (Austrian Energy Agency)

1.5 Electricity

Latvia is a net importer of electricity. The electricity production was 4.547 billion kWh in 2002, whereas electricity consumption totaled 5.829 billion kWh. Most of the electricity generated in Latvia is from hydroelectric power plants, which have a power-generating capacity of 2.1 GW. The remainder is generated by thermal plants using natural gas as well as smaller amounts of peat and fuel oil.

Latvia's electricity imports come from Estonia, Lithuania and Russia. Electricity imports amounted to 2.7 billion kWh in 2002. At the same time, Latvia exported 1.1 billion kWh of electricity.

The major power plants in Latvia are all operated by the state-owned utility Latvenergo, and they constitute 97% of Latvia's capacity. The remaining 3% are privately owned hydro and thermal plants. In 2003, Latvenergo generated 54% of the demanded electricity, 40% was imported and 6% purchased from small power plants.

Table 2. Electricity Supply in Latvia (Ministry of Economics)
(billion kWh)

Components of electricity supply	1999	2000	2001	2002	2003
Total electricity supply	6.065	5.922	6.163	6.323	6.608
Total generation of electricity	4.110	4.136	4.280	3.975	3.975
of which:					
HPP ²	2.744	2.799	2.801	2.433	2.216
CHP ³	1.222	1.163	1.246	1.238	1.363
Block stations and other equipment	0.128	0.150	0.198	0.263	0.298
Small HPS	0.014	0.020	0.032	0.030	0.050
Wind generators	0.002	0.004	0.0034	0.011	0.048
Total import of electricity	1.955	1.786	1.883	2.348	2.633

¹ Source: state JSC Latvenergo, Ministry of Economics, CSB

² Daugava cascade and Aiviekste HPP (HPP of state JSC Latvenergo)

³ CHP of state JSC Latvenergo

1.6 Environmental issues

The CO₂ emissions totaled 9 million tons in 1998, which is a dramatic reduction of 64% from 1990. The ratio of 3.4 tons of CO₂ per inhabitant is one of the lowest in the European Union.

The energy sector generated about 50% of total emissions in 2000. There is an inclination to shift from coal use to gas. The extraction of peat from wetlands is threatening wetland habitats.

2. Trends – past, present and future

The main objectives of the Latvian energy sector are to diversify fuel supply and to promote competition. The modernization of hydropower plants and conventional thermal power plants as well as the electricity grid are projected. There are some plans to build new thermal power plants of capacity of 350-400 MW and new CHP of about 32 MW.

In the electricity generation sector, the relatively low prices of imported electricity do not encourage new, independent electricity generators to enter the market. During the past years, only electricity generation with state-supported prices has evolved, namely small hydro-electric power plants, cogeneration, and wind power.

At the moment, Latvia is co-operating with Estonia and Finland in a project called "Estlink" to construct an underwater cable linking the Baltic states to the Scandinavian and Nordic power grids. "Estlink" is designed to reduce regional dependency on Russia, and is expected to be completed by late 2006.

3. Policy – present, future and critical review

Latvia is currently incorporating EU policies in its energy framework. In the electricity supply sector, this means that the electricity market in Latvia must be gradually opened.

Latvia is inclined to improve its energy efficiency and to support renewable energy technologies. The Energy Policy adopted in 1997 also prioritizes energy diversification and the restructuring of the sector.

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Abbreviations

EU – European Union

NATO – North Atlantic Treaty Organisation

GDP – Gross domestic product

Mtoe – Millions of tons of oil equivalent

TPES – Total primal energy supply

CHP – Combined heat and power