

LITHUANIA

Country at a glance

- Population: 3.32 million (2010) [1]
- Total area: 64,300 sq. km [2]
- Carbon emissions per capita: 4.02 metric tons (2010) [3]
- Energy consumption per capita: 24.25 MWh (2010) [4]
- Percentage of global carbon emissions: 0.04% (2010) [3]



Biogas bus project in Lithuania

This project is aimed at demonstrating the economic use of biogas busses and their contribution to cleaner air.

Biogas bus in Vilnius, Lithuania by Bearas. Permission Under CC BY-SA 3.0 commons.wikimedia.org/wiki/File:Biogas_bus_in_Vilnius,_Lithuania.JPG

Table 1 Breakdown of energy use, electricity and heat generation, 2010

	Primary energy sourced within country		Energy imports minus exports	Primary energy used within the country ^(a)			Electricity Generation ^(b)		Heat Generation ^(c)		
	unit	ktoe	%	ktoe	ktoe	GWh	%	GWh	%	GWh	%
Coal, including brown coal & peat		9	1	181	205	2,385	3	0	0	55	0
Oil fuels		118	9	2,599	2,441	28,389	36	647	14	408	0
Natural gas		0	0	2,484	2,491	28,970	37	3,186	67	8,467	0
Nuclear		0	0	0	0	0	0	0	0	0	0
Hydroelectric		46	4	0	46	540	1	540	11	0	0
Biofuels and waste		1,113	85	-135	993	11,553	15	147	3	2,163	0
Solar photovoltaics		0	0	0	0	0	0	0	0	0	0
Solar thermal		0	0	0	0	0	0	0	0	0	0
Tide, wave and ocean		0	0	0	0	0	0	0	0	0	0
Wind		19	1	0	19	224	0	224	5	0	0
Geothermal		5	0	0	5	53	0	0	0	26	0
Electricity (imported)		0	0	515	515	5,991	8	0	0	209	0
Sub total Renewables		1,184	90	-135	1,064	12,370	16	911	19	2,189	0
Totals		1,310	100	5,644	6,716	78,105	100	4,744	100	11,328	0

Source: Based on World Energy Statistics and Balances Database 2012, "World Energy Balances." © OECD/IEA, 2012.

Notes:

Standard conversion used is 1 ktoe = 11.63 GWh

- (a) Sum of energy sourced within country, energy imports minus exports, international marine and aviation bunkers and stock change flows.
- (b) Includes all electricity generation, including any exported.
- (c) Does not include electrical heating. Includes waste heat recovery from electricity generation plants.

Table 2 Breakdown of transport fuel use, 2010

	Total transport mix	%	Domestic aviation	Road	%	Rail	Pipeline transport	Domestic navigation	Non-specified (transport)
(in ktoe)									
Oil products	1,428	95	0	1,359	97	61	0	6	2
Natural gas	25	2	0	2	0	0	22	0	0
Biofuels and waste	45	3	0	45	3	0	0	0	0
Electricity	7	0	0	0	0	1	2	0	3
Sub total Renewables	45	3	0	45	3	0	0	0	0
Total	1,503	100	0	1,406	100	62	25	6	5

Source: Based on World Energy Statistics and Balances Database 2012, "World Energy Balances." © OECD/IEA, 2012.

Stand on climate change

The Republic of Lithuania ratified the UNFCCC in February 1995 and the Kyoto protocol in November 2002. In separate years, the Lithuanian Government adopted a new law on financial instrument for climate change management, established the Climate Change Division at the Ministry of Environment, and updated the National Strategy for Sustainable Development [5].

National climate change programmes

On 16 September 2009 the Government of the Republic of Lithuania approved the updated National Strategy for Sustainable Development.

Main objectives of the sustainable development are to:

- coordinate environmental protection, economic and social development concerns
- ensure a clean and healthy environment, effective use of natural resources
- ensure overall economic welfare of the society and strong social guarantees, and, according to economic, social and eco-efficiency indicators, to achieve the 2003 average level of the EU-15 countries
- comply with the EU allowable standards according to environmental pollution indicators, as well as implement requirements of international conventions limiting environmental pollution and input into the global climate change during the implementation period of the Strategy (until 2020)

Reports on the implementation of the Strategy shall be prepared every two years. Reports shall be processed through the National Commission for Sustainable Development, regulation of which is approved by the Government of the Republic of Lithuania of 28th July 2000. A specific expert group, approved by the Minister of Environment of 19th December 2003, performs regular analysis of external and internal changes, evaluates the progress in the implementation of the Strategy, and prepares recommendations on how to eliminate defects.

Energy

- Enhancement of the use of Renewable Energy Sources (RES)
 - By 2010, 7% of all electricity consumed in Lithuania was to be produced from RES
 - By 2009, energy produced from biomass, originated in Lithuania, was to amount to 10.5% of the entire energy consumption. By 2010 electricity produced from biomass was to amount to 1.65% of the overall electricity consumption
 - RES (including biofuels) will constitute 20% of the total energy supply by 2025
- Increase of energy efficiency
 - Implementation of the Energy Efficiency Action Plan to provide final energy savings to amount to 1092GWh/ year in 2010 and 4725GWh/ year in 2016
 - Voluntary agreements with energy companies to plan energy savings in 2010 (110Gwh) and 2016 (740GWh). Agreement started in 2009 and ends in 2016
 - Lithuanian Environment Investment Fund to support measures reducing negative impact on the environment
 - Requirement to purchase energy-efficient goods and National Green Procurement Implementation Programme
 - Design Energy Star labelling for office equipment, Energy efficiency labelling for household appliances

Transportation

- The main legal acts and programmes of the Republic of Lithuania regulating the measures associated with climate change in the sector of transport include:
 - Lithuanian Transport System Development Strategy
 - Law on Biomass, biofuel and bio-oils
 - Lithuanian National Strategy Development Plan of biofuel Technological Platform
 - Law on Environment Pollution Tax
 - Rules on Trading of Oil Products
 - Biofuel
 - Bio-oil and other Flammable Liquid Products in the Republic of Lithuania
 - Rules on Financing of Development of Bio-fuel Production
- One of the planned objectives is the increased share of biofuel consumption in the transport sector to 5.75 % until 2010 and 15 % (450 TOE) until the year 2025
- Stimulation of biofuel production and consumption via enforcing zero tariff for ethyl alcohol that is intended for production of bio-ethyl-tret-butyl-ether; as well as via the Law on Environment Pollution Tax, which exempts the subject from tax of environment pollution from mobile pollution sources (transportation/ vehicles) upon submission of documentary proof on biofuel consumption
- Increasing the efficiency of fuel consumption by providing subsidies or other tax exemptions/ privileges in procuring EURO 5 or EURO 6 standard heavyweight vehicles

Agriculture

- In the Lithuanian Rural Development Programme for 2007-2013, which aims at the improvement of life quality in rural areas by increasing employment, supporting transition from agricultural activities to non-agricultural activities, stimulating the development of main services and crafts of the rural population, financial support for rural development from the European Agricultural Foundation (RDEAF) is foreseen based on the following trends: increased competitiveness of agricultural and forestry sector, improvement of environment and landscape, improvement of life quality and other measures. 7.8 billion Litass have been allocated for the first phase (“Trend One”), which covers the implementation of the Council Directive of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources. Another 3.2 billion Litass have been allocated for the increase of economic value of forests. Lithuania’s Fifth National Communication under the UNFCCC 84
- “Trend Two”, includes ecological farming, land afforestation, and improvement of the condition of risky water bodies and was assigned 2.8 billion Litass.

Ministries involved in climate change/energy policy making:

Ministries involved	Web links
Ministry of Environment	www.am.lt/VI/en/VI/index.php
Ministry of Economy	www.ukmin.lt/en/
Ministry of Foreign Affairs	www.urm.lt/index.php?3984444239
Ministry of Health	www.sam.lt/go.php/lit/IMG
Ministry of Transport and Communications	www.sumin.lt/en
Ministry of Finance	www.finmin.lt/web/finmin/home
Ministry of Social Security and Labour	www.socmin.lt/index.php?1322685527
Ministry of Energy	www.enmin.lt/en/
Ministry of Education and Science	www.smm.lt/en/index.htm
Ministry of Agriculture	www.zum.lt/index.php?842077961?842077961

Education institutes involved in climate change/energy policy making:

Education Institutes involved	Web links
Lithuanian Green Movement	www.foei.org/en/who-we-are/member-directory/groups-by-region/europe/lithuania.html
European Law Department (Ministry of Justice)	en.tm.lt/
Lithuanian Energy Institute	www.lei.lt/index.php?k=9
Confederation of Lithuanian Industrialists	www.lpk.lt/?q=en
Vilnius University	www.vu.lt/en

References

- [1] "World Population Prospects: The 2010 Revision." Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat.
- [2] "CIA - The World Factbook." Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/th.html>. [Accessed: 12-Mar-2013].
- [3] CO₂ Emissions from Fuel Combustion Statistics database 2012, "Indicators for CO₂ emissions." © OECD/IEA, 2012.
- [4] World Energy Statistics and Balances database 2012, "World Energy Balances." © OECD/IEA, 2012.
- [5] "Lithuania's Fifth National Communication under the United Nations Framework Convention on Climate Change." Lietuvos Respublikos Aplinkos Ministerija. Available at: http://unfccc.int/resource/docs/natc/ltu_nc5_resubmit.pdf



Contact us at contact@aeepn.com

Compiled by:
Lim Shao Hong