

Lithuania

Renewable energy status

Share of energy from renewable sources in total gross final energy consumption



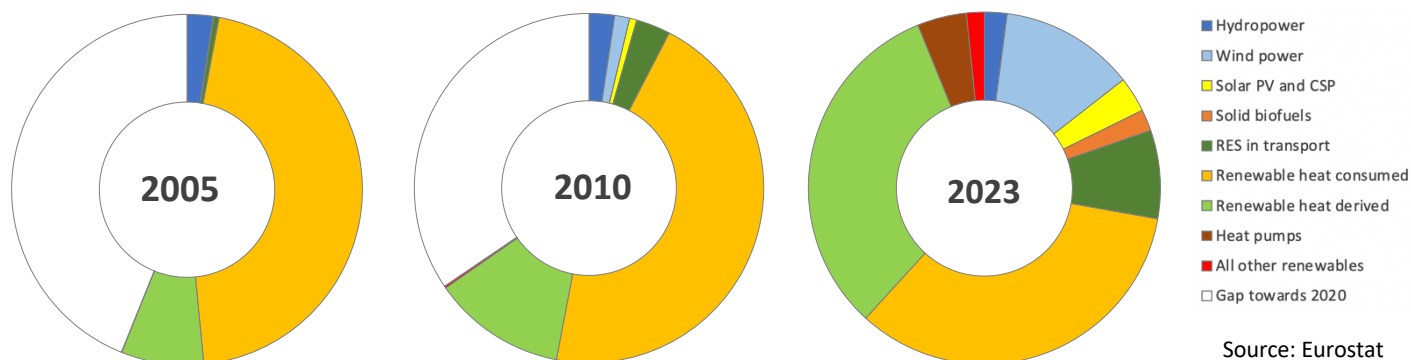
Source: Eurostat

Abbreviations used:

RES: renewable energy sources
RES-E: renewable electricity
RES-H/C: renewable heating/cooling
RES-T: renewable transport fuels

Data for 2023

Overall RES share:	31.9%	Avoided fossil fuels:	0.7 [Mtoe]
Overall RES 2020 target:	23.0%	Avoided fuel expenses:	483 [MEUR]
Overall RES 2030 target:	55.0%	RES Turnover:	1 700 [MEUR]
Share RES-E in electricity:	36.5%	RES Employment:	39 600 [jobs]
Share RES-T in transport:	7.2%	RES imports ² :	304 [MEUR]
Share RES-H/C in heating:	53.6%	RES exports ² :	110 [MEUR]



	2005	2010	2023		
	Energy in ktoe	Energy in ktoe	Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	36.9	36.1	37.8	300	10
Wind power	0.2	21.2	225.4	5 800	270
Solar PV, and CSP	0.0	0.0	59.2	9 100	380
Solid biomass	0.3	10.0	35.8	11 600	420
Ren. energy in transport ³	7.5	48.8	147.9	8 300	410
Renew. heat consumed	694.8	692.6	618.1		
Renew. heat derived	116.3	188.2	583.6		
Heat pumps	0.0	0.0	82.3	3 000	130
All other renewables	0.3	2.7	29.8	1 500	80

Source: Eurostat, EurObserv'ER

FTE = Full time equivalent, PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in auto-producer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

¹ From Integrated National Energy Climate Plan

² Referring to the International Trade chapter from the publication: EurObserv'ER - *The State of Renewable Energy in Europe, 2024 edition*

³ Employment and turnover are only referring to biofuels in transport.



CURRENT RENEWABLE ENERGY POLICY

RES-E

Lithuania is making significant strides in the renewable energy sector, with a goal to meet all domestic electricity needs through renewables by 2030. The country has stopped importing energy from Russia, marking an important step towards energy independence. In April 2022, the Lithuanian government introduced a comprehensive package titled “Mitigation of the Effects of Inflation and Strengthening Energy Independence”, allocating EUR 2.26 billion. This plan includes EUR 832 million for gas and electricity price compensation, EUR 60 million each for promoting solar power installations and solar power stations in public buildings, EUR 70 million for hydrogen production equipment from renewable sources, and EUR 9.8 million for an offshore wind park in the Baltic Sea.

The Lithuanian National Energy Regulatory Council (VERT) has initiated a tender process for constructing an offshore wind farm, representing a €1.83 billion investment, which aims to provide up to 700 MW of electricity. Wind power accounted for 13.5% of total energy consumption in 2022, and the successful implementation of this project is expected to be operational by 2030. The first tender was unsuccessful due to insufficient bids, with only Ignitis Group participating; thus, the State Energy Regulatory Council (NERC) have highlighted intentions to restart the tender but have not yet announced a date. New regulations will include a two-way contract for difference (CfD) mechanism to enhance competition and attract more proposals. Additionally, at the moment, there are only a few legal provisions on policies aiming at promoting the development, installation and use of RES installations.

RES-H&C

In the heating and cooling sector, Lithuania is enhancing its renewable energy efforts through a series of supportive policies. In May 2023, the government has introduced a fuel excise tax reform aimed at discouraging the use of environmentally harmful fuels, which includes withdrawing subsidies for fossil fuels and incorporating CO₂ components into the excise duty structure. This is part of a broader strategy to promote green technologies and increase the share of renewable heating and cooling solutions in the energy mix.

RES-T

Lithuania did not meet its 2020 final energy consumption target of 4.3 million tons of oil equivalent (Mtoe), highlighting the need for additional measures, particularly in building renovation and the transport sector. Therefore, the transport sector is benefiting much more from supportive measures aimed at boosting the adoption of renewable energy sources. Lithuania has implemented a biofuel quota that mandates a substitution obligation on importers and wholesalers of fossil fuels, promoting the use of biofuels in transportation. Further benefits include company tax advantages, exemptions from road tax until 2024, and subsidies for private charging infrastructure. These initiatives are complemented by efforts to secure EU funds for investments in green, innovative technologies, thereby enhancing economic resilience and supporting the transition to sustainable transport solutions.

Table 1: Brief description of key policy instruments aimed at promoting RES in Lithuania

<i>Instrument</i>	<i>Description</i>
Integrated National Energy and Climate Plan (NECP), 2021 - 2030	In 2019, Lithuania adopted the final National Energy and Climate Action Plan for the period 2021-30 (Governance of the Energy Union Regulation [EU]) 2018/1999).
National Energy Independence Strategy (NEIS)	Since its adoption in 2018, Lithuania's main energy strategy has been the NEIS. An updated version was approved by parliament in 2018, outlining key energy targets and actions for 2020, 2030, and 2050. The NEIS focuses on completing energy security projects, enhancing competitiveness, reducing environmental and climate impacts, and promoting innovation and new technologies (Republic of Lithuania, 2018).
Mitigation of the Effects of Inflation and Strengthening Energy Independence	In April 2022, Lithuania government introduced this wide-ranging package of measures. To counteract energy price shocks, the plan includes EUR 832 million for gas and electricity price compensation, with EUR 120 million specifically for businesses. For energy independence, EUR 60 million is allocated to promote solar power installations and EUR 60 million for solar power stations in public buildings. Additionally, EUR 70 million is earmarked for hydrogen production equipment from renewable sources, and EUR 9.8 million for an offshore wind park in the Baltic Sea. The package combines funding from the National budget, EU assistance, financial instruments, and the Sodra budget.
Tender for the construction of an offshore wind farm	Lithuania's Ministry of Energy will relaunch its second offshore wind tender after the first round was unsuccessful due to insufficient bids, with only Ignitis Group participating. The new tender will aim to develop a 700-MW wind project in the Baltic Sea, with proposals due by April 14, 2024. Updated conditions will include a two-way contract for difference mechanism to encourage competitive bidding and attract more developers.
Fuel excise tax reform	In May 2023, the parliament approved a fuel excise package aimed at reducing the use of environmentally harmful fuels. This package withdraws subsidies for fossil fuels and introduces CO2 components to the excise duty structure, supporting the country's transition to greener energy sources.
Purchase subsidies for electric vehicle	Purchase incentives (bonus) for individuals in 2024: <ul style="list-style-type: none"> • €2,500 for a used M1 electric vehicle with first registration after 2 April 2016, or model year 2016 and later-Battery-electric vehicles (BEVs) are eligible for a EUR5,000 purchase incentive. • Plug-in hybrid vehicles (PHEVs) are eligible for a EUR2,000 purchase incentive. • The maximum purchase price of an eligible EV is EUR45,000. Additional €1,000 for scrapping old diesel or petrol M1, owned for at least 12 months, and with a valid MOT for the dates: 2 February 2021 or 13 March 2020
Company tax benefits for electric vehicle	Purchase incentives (bonus) for vehicles ≤ six months: M1 electric vehicle: €5,000- Additional €1,000 for scrapping an old diesel or petrol M1, owned for at least 12 months, with a valid MOT Maximum subsidy is €400,000 per company.
Ownership / Circulation tax benefits for electric vehicle	All Electric Vehicles are exempt from road tax until 2024.
AF infrastructure incentives for electric vehicle	Private charging infrastructure is subsidized with up to €1,500 for wall boxes or charging cables and up to €3,000 for shared systems in multi-party buildings.
VAT Benefits for purchasing passenger of electric vehicle	Effective from 1 January 2023, permits an input VAT deduction for purchasing passenger (M1) electric cars of up to €50,000 (including VAT).

For further information:

IEA (2023): Natural Gas and Power Subsidies for Households, <https://www.iea.org/policies/17525-2023-natural-gas-and-power-subsidies-for-households>

IEA (2023): Policies in Lithuania, <https://www.iea.org/policies?q=lithuania&country%5B0%5D=Lithuania>

European Commission (2023): In-Depth Review of Lithuania, https://economy-finance.ec.europa.eu/system/files/2023-06/ip239_en.pdf

RES Legal (2023): Renewable Energy Policies in Lithuania, <http://www.res-legal.eu/search-by-country/lithuania/>

European Alternative Fuels Observatory (2024): Lithuania – Incentives and Legislation, <https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/lithuania/incentives-legislations>

Minister for Energy of the Republic of Lithuania (2023): National energy and climate action plan of the Republic of Lithuania for 2021 – 2030, https://energy.ec.europa.eu/system/files/2022-08/lt_final_necp_main_en.pdf

RES – Legal (n.d): Lithuania: Overall summary, <http://www.res-legal.eu/search-by-country/lithuania/>

What is meant by ...?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff degression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a degression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.



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