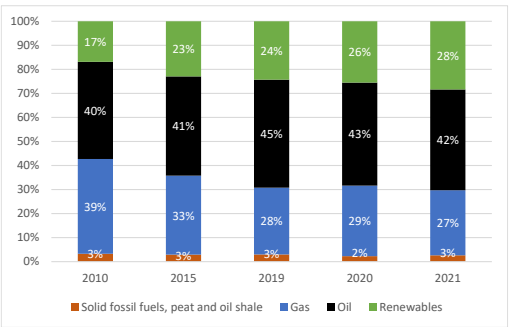
State of the Energy Union 2023 Lithuania

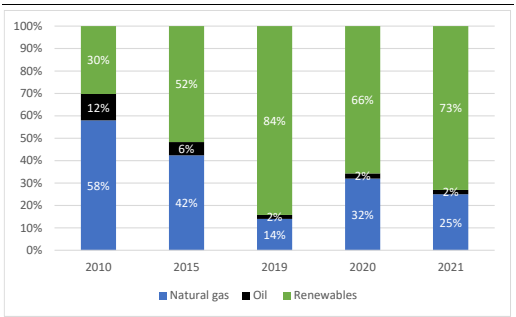
Key energy figures

Graph 1: **Energy mix**



Source: Eurostat

Graph 2: **Electricity mix**



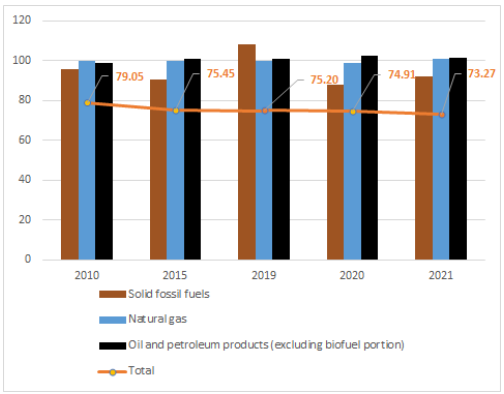
Source: Eurostat

- **Renewable energy** represents an increasing share of Lithuania's energy and electricity gross final consumption.
- Gas accounted for **quarter of gross electricity production in 2021**, a share that has been fluctuating but decreasing.

Security, solidarity and trust

1. DIVERSIFICATION OF ENERGY SOURCES AND REDUCTION OF IMPORT DEPENDENCY

Graph 3: **Import dependency on fossil fuels**



(1) In percentages (%)
(2) Combustible renewables and electricity are excluded
(3) The total amount takes into consideration the energy mix of the country
Source: Eurostat

- Before Russia's invasion of Ukraine, Lithuania was heavily reliant on Russian gas and oil. However, the Klaipeda liquefied natural gas terminal **allowed Lithuania to already diversify its natural gas imports**, while the country stopped all Russian natural gas imports in April 2022, as well as commercial electricity trades with Russia and Belarus.

- **The security of supply of the gas system and electricity system are interlinked**. Lithuania is also heavily reliant on electricity imports from European countries, importing 61% of its electricity consumption in 2021. Nevertheless, the electricity grid is still dependent on Russia and Belarus until the synchronisation project is completed.

2. FLEXIBILITY OF THE ENERGY SYSTEM

- **Energy storage:** Lithuania does not benefit from a domestic underground gas storage facility but cooperates with Latvia and stores gas volumes in the Inčukalns facility.

Integrated internal energy market

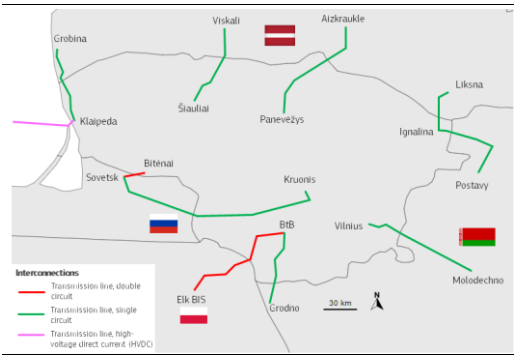
1. ELECTRICITY INTERCONNECTIVITY

2023	2030 target
72.35%	At least 15%

Source: DG ENER's own calculation based on ENTSO-E

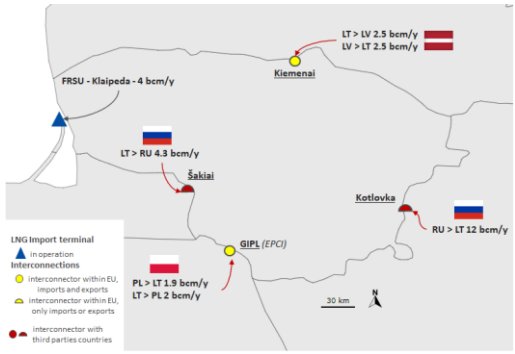
2. ENERGY TRANSMISSION INFRASTRUCTURE

Map 1: **Cross-border electricity interconnections**



Source: European Commission map recreation (based on ENTSO-E)

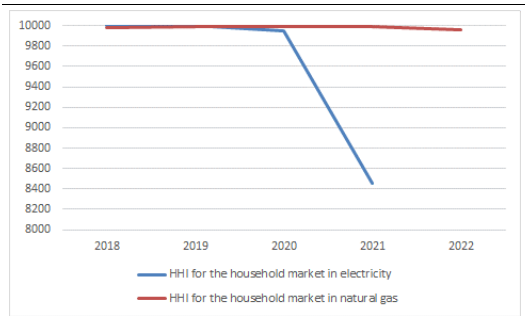
Map 2: **Cross-border gas interconnections**



Source: European Commission map recreation (based on ENTSO-G)

3. MARKET INTEGRATION

Graph 4: **Index of concentration (HHI) for the household markets in electricity and natural gas**



(1) No data available for HHI in electricity in 2022
Source: CEER 2023 out of ACER´s Energy Retail and Consumer Protection 2023 Market Monitoring Report

- In 2022, in Lithuania the market share of the three largest suppliers reached 99.96% for natural gas.

Rollout of electricity smart meters

- Lithuania had a **low electricity smart meter rollout**, with 12.3% of household consumers being equipped with smart meters in 2022. (1)

(1) ACER, CEER. Energy Retail and Consumer Protection, 2023 Market Monitoring Report

4. ENERGY POVERTY AND JUST TRANSITION

Table 1: **Energy poverty**

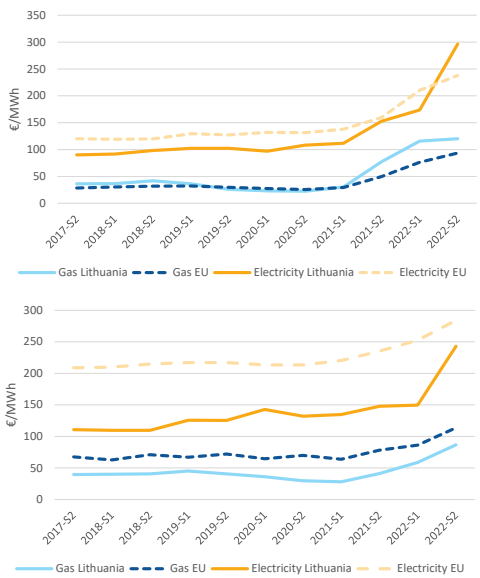
	Lithuania			EU		
	2020	2021	2022	2020	2021	2022
Arrears on utility bills (households %)	6.3%	5.5%	5.5%	6.5%	6.4%	6.9%
Inability to keep home adequately warm (household %)	23.1%	22.5%	17.5%	7.5%	6.9%	9.3%
Population living in dwelling with presence of lead, damp and rot (population %)	10.9%	:	:	14.8%	:	:

Source: Eurostat

- **Just transition plan**: Lithuania's Territorial Just Transition Plans set out the transition away from fossil fuel-based industries in the Jonava, Kėdainiai, and Tauragė regions. The plan sets out how the Just transition Fund, with a national allocation of 273€ million will support SME development, energy efficient and greener production processes, rejuvenation of industrial lands and reskilling of the workforce.

5. ENERGY PRICES

Graph 5: **Energy retail prices for industry (top) and households (bottom)**

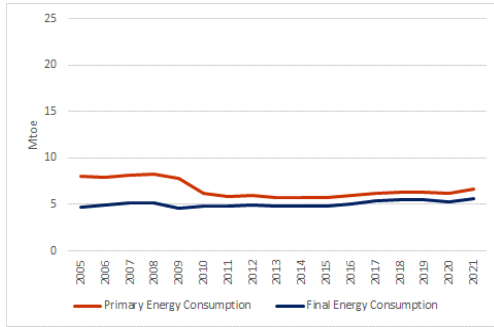


(1) On electricity, the band consumption is for DC households and ID for industry
(2) On gas, the band consumption is D2 for households and I4 for industry
Source: Eurostat

Energy efficiency

1. ENERGY EFFICIENCY

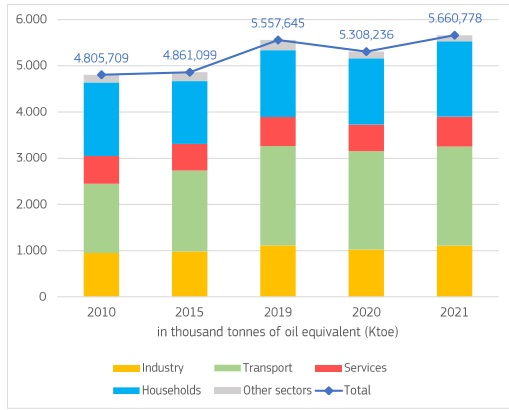
Graph 6: **Primary and final energy consumption**



Source: Eurostat

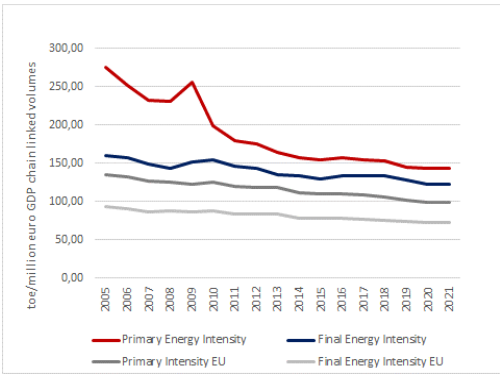
- In 2021, Lithuania's **Primary Energy Consumption (PEC)** amounted to 6.63 Mtoe, 5.6% higher than in 2019, while its **Final Energy Consumption (FEC)** amounted to 5.66 Mtoe, 1.9% higher than in 2019, to a large extent due to the COVID-19 crisis recovery.

Graph 7: **Final energy consumption by sector**



(1) Final energy consumption excludes consumption of the energy sector (including transformation and distribution losses) and non-energy use of energy carriers.
Source: Eurostat

Graph 8: **Primary and final energy intensity**



Source: Eurostat

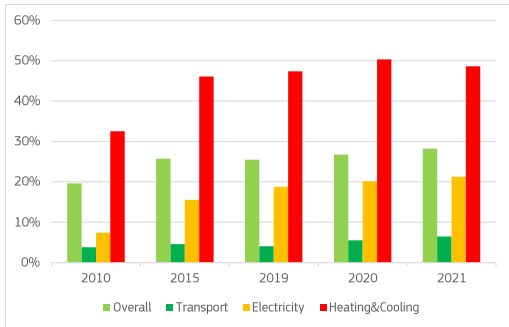
2. ENERGY SAVINGS IN BUILDINGS

- In 2020, there were **571 thousand residential buildings** in **Lithuania**.
- As per its 2020 Long Term Renovation Strategy (LTRS), **Lithuania** targets to achieve **-15%** of energy savings **by 2030** compared to **year 2020** in the building sector.
- In 2021, the final energy consumption of residential buildings **decreased by 4.91%** compared to 2019.
- The sales of heat pumps amounted to **25 130 units** in 2022 representing an increase of **1%** compared to 2021, as per the European Heat Pump Association (EHPA).

Decarbonisation and climate action

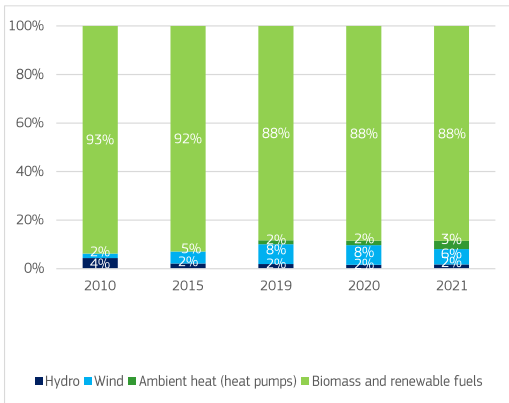
1. SECTORAL SHARE OF RENEWABLE ENERGY

Graph 9: **Share of renewable energy sources**



(1) In % of gross final consumption of energy
Source: Eurostat

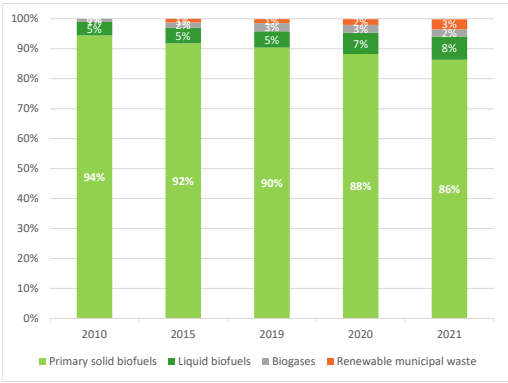
Graph 10: **Renewable energy mix**



(1) In % of gross final consumption of energy
Source: Eurostat

2. BIOENERGY DEMAND

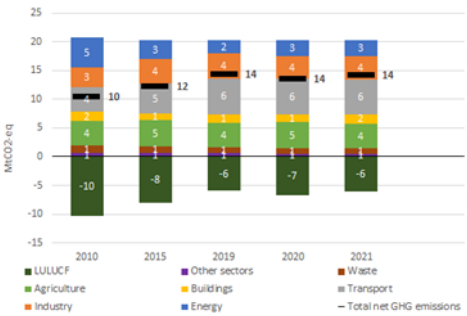
Graph 11: **Bioenergy mix**



(1) Composition of bioenergy, in % of gross inland consumption of energy
Source: Eurostat

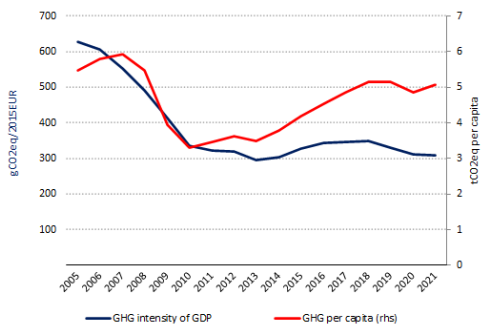
3. GREENHOUSE GAS EMISSIONS

Graph 12: **Greenhouse gas emissions by sector**



(1) Energy sector refers to electricity and heat production and petroleum refining.
(2) Industry includes fuel combustion in manufacturing and construction and emissions in industrial processes and product use.
(3) Buildings include emissions from energy use in residential and tertiary buildings, and energy use in agriculture and fishery sectors.
(4) Total net GHG emission including LULUCF and excluding international aviation
Source: EEA

Graph 13: **GHG per capita and GHG intensity of GDP**



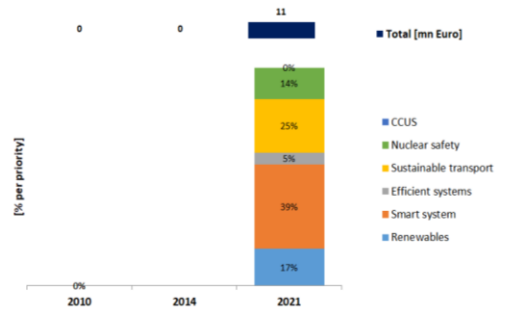
(1) Total greenhouse gas emissions, including LULUCF and excluding international aviation.
Source: Greenhouse gas inventory 1990-2021 (EEA). Real GDP in 2015-prices (AMECO, European Commission). Population (Eurostat).

- With 309 gCO2eq/2015EUR, Lithuania lies above the EU average in terms of GHG intensity of GDP.
- With 5 tonnes of CO2 equivalent per capita, Lithuania is below the EU average in terms of GHG emissions per capita.
- For more detailed information on country profiles see Progress made in cutting emissions (europa.eu).

Research, innovation and competitiveness

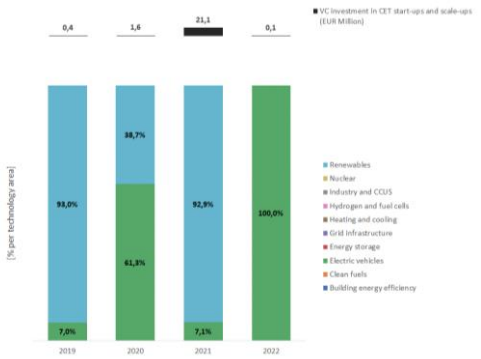
1. INVESTMENT IN R&I

Graph 14: **Public investment in Energy Union R&I priorities**



Source: JRC SETIS 2023

Graph 15: **Venture capital investment in clean energy technology (start-ups and scale-ups)**



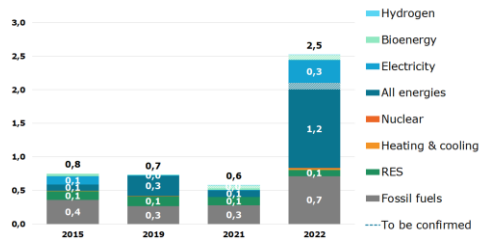
(1) Firms typically use venture capital to expand, break into new markets, and grow faster. Venture capital is essential for the growth of innovative firms and it is key to foster the EU's competitiveness and to strengthen the EU's technology sovereignty in the clean energy sector.
Source: JRC SETIS 2023

2. ENERGY SUBSIDIES

Graph 16: **Energy subsidies by purpose**

(1) Subsidies in EUR 2022 billion
(2) Some 2022 data were not fully available or validated at the time the study was completed (August 2023). For missing 2022 values, 2021 data were taken as a basis for an estimate. The estimated data are referred to as 'to be confirmed' in the graphs and indicated by hatching.
Source: Enerdata. Inventory of energy subsidies in the EU27 - 2023 edition

Graph 17: **Energy subsidies by carrier**



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European Semester 2023

Country Specific Recommendation (Energy):

Further reduce reliance on fossil fuels and imported energy by accelerating the deployment of renewables, in particular by ensuring sufficient grid capacity and access, ensuring the transformation and decarbonisation of industrial production, increasing the uptake of public and sustainable transport and making buildings more energy efficient, also to reduce energy poverty. Ensure sufficient capacity of energy interconnections to increase security of supply, continuing the timely synchronisation with the EU electricity grid. Step up policy efforts aimed at the provision and acquisition of the skills needed for the green transition. (2)

For more information see the 2023 European Semester Country Report.

National Energy and Climate Plan (NECP)

- **The draft updated NECP** was submitted to the European Commission in June 2023.
- For more information see the dedicated webpage of the European Commission on the NECPs.

(2) Council of the European Union 9840/1/23

Recovery and Resilience Plan (RRP) and REPowerEU chapter

- **The Lithuanian RRP was approved by the Council on 28 July 2021**.
- The implementation of the measures proposed in the RRP would allow Lithuania to access **EUR 2.2 billion in grants**.
- **38%** of these funds are **allocated** for measures contributing to **climate objectives**.
- The Commission **disbursed so far EUR 831.45 million to Lithuania.** A 1st payment request was disbursed on 10 May 2023.
- On 30 June 2023, Lithuania submitted a **request to revise its RRP**, adding a **REPowerEU chapter**.
- The amended RRP takes into account the **revised RRF grant allocation** for Lithuania decreased to EUR 2.09 billion. It includes also the EUR 194 million **REPowerEU grant allocation** and EUR 4.7 million **voluntary transfer from the Brexit Adjustment Reserve**. Lithuania has also requested EUR 1.7 billion in **loans**. The **total amount available** is therefore EUR 4 billion.
- For more information visit the Recovery and Resilience Scoreboard.