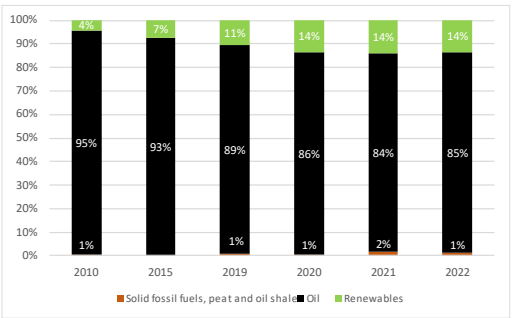
State of the Energy Union 2024: Cyprus

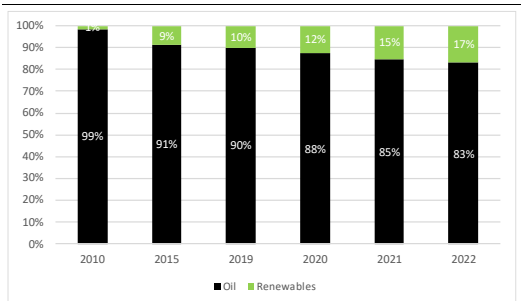
Key energy figures

Graph 1: **Energy mix**



(1) The 2022 gross inland energy consumption was 107 643 TJ. (0.2% of the total EU consumption).
Source: Eurostat

Graph 2: **Electricity mix**



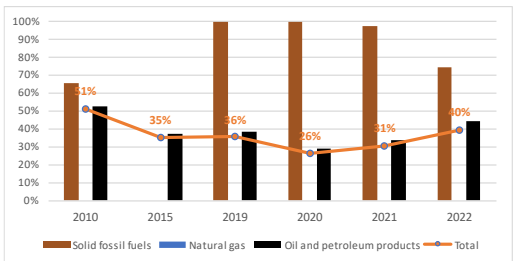
(1) The 2022 gross electricity production was 5.3 TWh. (0.2% of the total EU production).
Source: Eurostat

- Fossil fuels account for 86.3% of Cyprus´s **energy mix** (compared to 69% at EU level), with oil and petroleum products covering alone 85.1%. The share renewables was 13.7%.
- The **electricity mix** of Cyprus is dominated by oil and petroleum products with 82.2%, while renewable energy accounted for the remaining 16.8% (compared to 39.4% at EU level).

Security, solidarity and trust

1. DIVERSIFICATION OF ENERGY SOURCES AND REDUCTION OF IMPORT DEPENDENCY

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



(1) The graph shows the Member States' import dependency on third countries by fuel type.
(2) Combustible renewables and electricity are excluded.
(3) The total amount takes into consideration the energy mix of the country.
Source: Eurostat

2. FLEXIBILITY OF THE ENERGY SYSTEM

- Cyprus **has no underground gas storage facility** and is exempted from the regulation on gas storage[(1)].

(1) Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage.

Integrated internal energy market

1. ELECTRICITY INTERCONNECTIVITY

Table 1: **Electricity interconnectivity**

2024	2030 target
0.0 %	At least 15%

1) The electricity interconnectivity is a ratio of electricity import capacity of a given Member State (sum of net transfer capacities of interconnectors with neighbouring Member States) and its total power generation capacity. The 2030 level represents the general interconnectivity target of 15%.
Source: European Commission's own calculations based on the ENTSO-E Winter Outlook 2023-2024 data

2. MARKET INTEGRATION

Rollout of electricity smart meters

- Cyprus is promoting the wide scale roll-out of smart meters through its Recovery and Resilience Plan. The plan is to install 400 000 smart meters, by 30 June 2026.[2]

3. ENERGY POVERTY, SOCIAL CLIMATE PLAN AND JUST TRANSITION

Table 2: **Energy poverty**

Indicator	%	Evolution compared to		EU average
EED NECPs four main indicators	2023	2021	2017	
Inability to keep home adequately warm	16.9	-2.5 pp	-6 pp	10.6
Arrears on utility bills	9	-0.1 pp	-4.7pp	6.9
Share of pop. With leak, damp or rot in dwelling	31.6	-7.5 pp (2020)	+2.3 pp	15.5
AROP (At risk of poverty)	13.9	+ 0.1 pp	-1.8 pp	16.2

Source: Eurostat

Social Climate Plan

- Member States need to submit these plans to the European Commission by June 2025.
- Maximum financial allocation for Cyprus: EUR 145 million or 0.2 % of total SCF.

Just Transition Plan

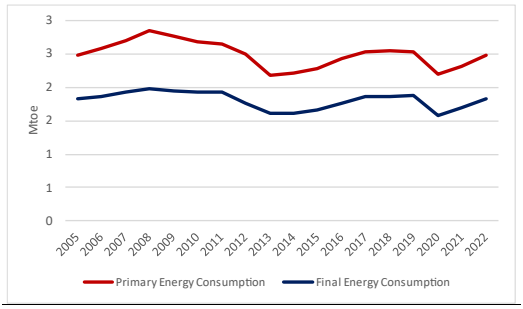
- Cyprus' Just Transition Plan focuses on the transition away from carbon-intensive industries. For a total envelope of EUR 101 million, actions include strengthening the energy transmission and distribution system to facilitate RES penetration, support for SMEs to decarbonise their production processes and training for green skills.

[2] ACER, 2024 Retail Market Monitoring Report, Energy retail and decarbonisation (forthcoming).

Energy efficiency

1. ENERGY EFFICIENCY

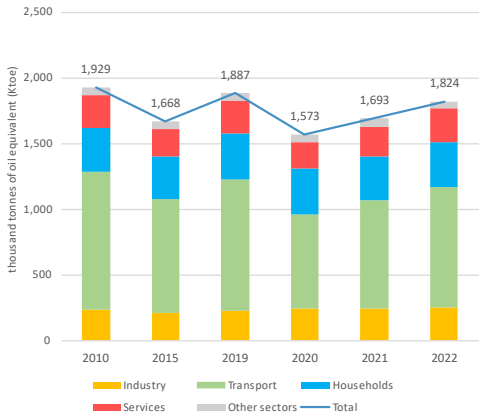
Graph 4: **Primary and final energy consumption**



Source: Eurostat

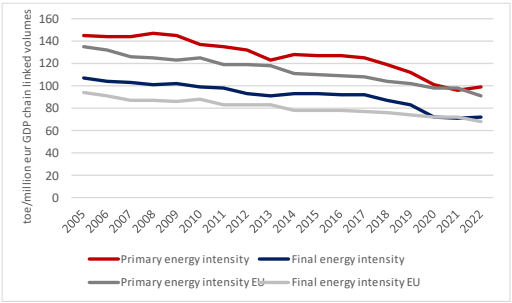
- In 2022, Cyprus's **Primary Energy Consumption (PEC)** amounted to 2.5 Mtoe, 7.4% higher than in 2021, while its **Final Energy Consumption (FEC)** amounted to 1.8 Mtoe, 7.7% higher than in 2021.

Graph 5: **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 6: **Primary and final energy intensity**



Source: Eurostat

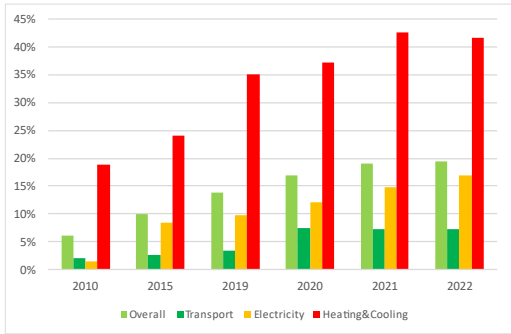
2. ENERGY PERFORMANCE OF BUILDINGS

- In 2022, Final Energy Consumption (FEC) in the Cypriot **residential sector** was **0.4 Mtoe**, representing **an increase of 1.9%** compared to 2021. In the **services sector**, FEC was **0.3 Mtoe**, with an **11.6% increase** compared to 2021.
- Heating and cooling account for around **71%** of the country's residential final energy consumption, with renewables supplying approximately **42%** of the gross final energy consumption for heating and cooling. As per the European Heat Pump Association (EHPA), there are no data available for Cyprus.
- In 2023, **9.0%** of the total population was experiencing difficulties on paying their utility bills while **16.9%** was not able to keep their home adequately warm over the cold periods of the year (decreasing from 2021, when such figures were, respectively, 9.1% and 19.4%). This underlines the importance to increase rate and depth of building renovation, specifically of worst-performing buildings.

Decarbonisation and climate action

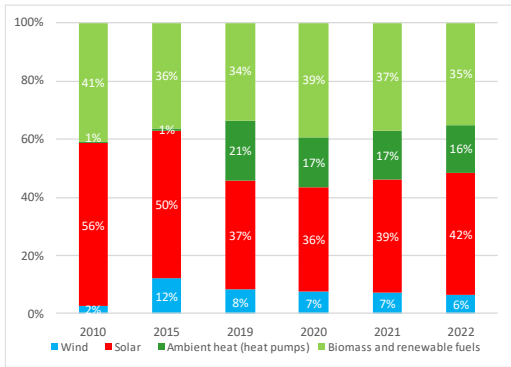
1. SECTORAL SHARE OF RENEWABLE ENERGY

Graph 7: **Share of renewable energy sources**



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

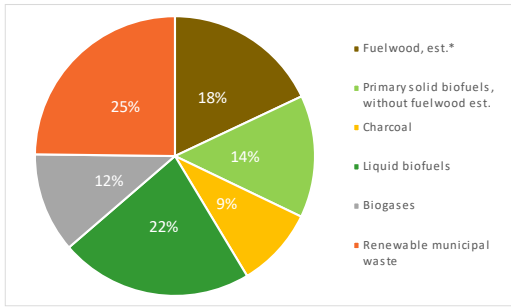
Graph 8: **Renewable energy mix**



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

2. BIOENERGY MIX

Graph 9: **Bioenergy mix**

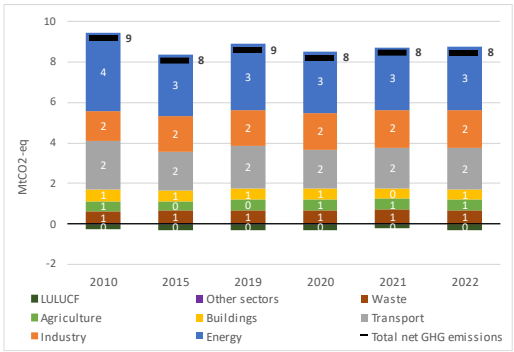


(1) In % of gross final consumption of energy (2022).
(2) * Fuelwood estimate, based on the Primary solid biofuels consumption in Other sectors, Eurostat and industry secondary data, DG ENER estimations.
Source: Eurostat and DG ENER

- For more information see the dedicated website on biomethane country fiches.

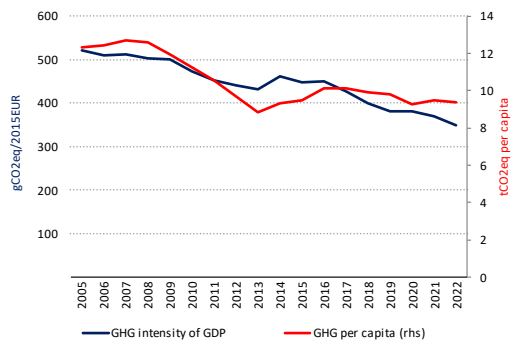
3. GREENHOUSE GAS EMISSIONS

Graph 10: **Greenhouse gas emissions by sector**



Based on UNFCC GHG Inventory reporting as per the IPCC categories: (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: Greenhouse gas inventory 1990-2022 (EEA)

Graph 11: **GHG per capita and GHG intensity of GDP**



(1) Total greenhouse gas emissions, including LULUCF and excluding international aviation.
Source: Greenhouse gas inventory 1990-2022 (EEA). Real GDP in 2015-prices (AMECO, European Commission). Population (Eurostat).

- With 349 gCO2eq/2015EUR, Cyprus lies above the EU average in terms of GHG intensity of GDP.
- With 9 tonnes of CO2 equivalent per capita, Cyprus is above the EU average in terms of GHG emissions per capita.

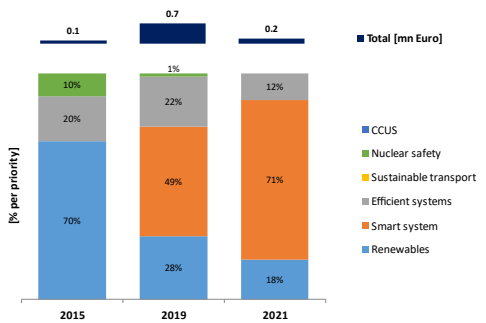
- For more detailed information on country profiles see Progress on climate action (europa.eu).

Research, innovation and competitiveness

1. INVESTMENT IN R&I

- Public investment in research and innovation (R&I) in Energy Union priorities[3] increased from 0.0006% in 2015 to 0.0006% in 2021 (share of GDP).[4]

Graph 12: **Public investment in Energy Union R&I priorities**



Source: JRC SETIS 2024

- No data available for venture capital investment in clean energy technology (start-ups and scale-ups).

2. NET-ZERO ENERGY TECHNOLOGIES

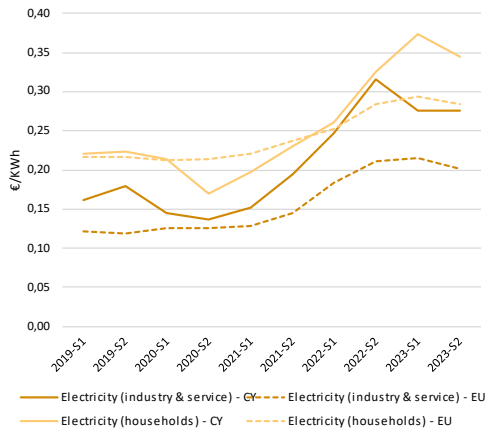
- Due to its economic and geographical characteristics, Cyprus has limited potential for the development of a fully-fledged NetZero supply chain and remains dependent on imports for renewable energy deployment. Clean-tech initiatives are currently limited, with the majority of examples being start-ups or pilot projects (e.g. design of innovative technologies for renewable natural gas). Regarding key materials for clean technologies, Cyprus is home to a hydrometallurgical plant in the area of Skouriotissa which processes laterite to recover nickel, an essential material for battery manufacturing. The plant has been operational since 2021, with an expected annual production capacity of 50 000 tons of nickel sulphate.

[3] Renewables, smart system, efficient systems, sustainable transport, CCUS and nuclear safety, COM(2015) 80 final ('Energy Union Package').

[4] Source: JRC SETIS 2024

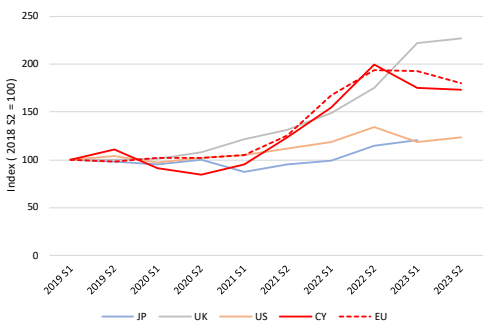
3. ENERGY PRICES DEVELOPMENT

Graph 13: **Cyprus energy retail prices for households and industry & service**



(1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability.
(2) For households, the consumption bands are D2 for gas and DC for electricity.
(3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes.
Source: Eurostat

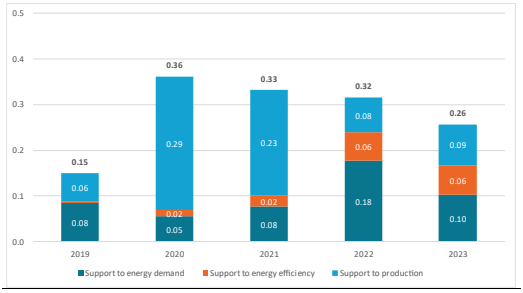
Graph 14: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



(1) For Eurostat data (EU and CY), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness.
(2) JP = Japan
Source: Eurostat, IEA

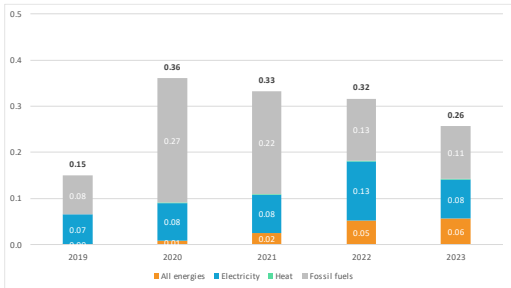
4. ENERGY SUBSIDIES

Graph 15: **Energy subsidies by purpose**



(1) Subsidies in EUR 2023 billion
(2) Some 2023 data were not fully available or validated at the time the study was completed (August 2024). For missing 2023 values, 2022 data were taken as a basis for an estimate.
Source: Enerdata. Inventory of energy subsidies in the EU27 – 2024 edition

Graph 16: **Energy subsidies by carrier**



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Source: Enerdata. Inventory of energy subsidies in the EU27 – 2024 edition

European Semester 2024

- **Country Specific Recommendation (Energy):** Upgrade and expand the grid and storage to accommodate an increasing share of renewables. Improve the implementation of climate adaptation measures, by focusing on fostering the institutional framework governing climate adaptation and implementing sustainable water management practices in agriculture. [5]
- For more information see the 2024 European Semester Country Report.

[5] Council of the European Union 11705/24.

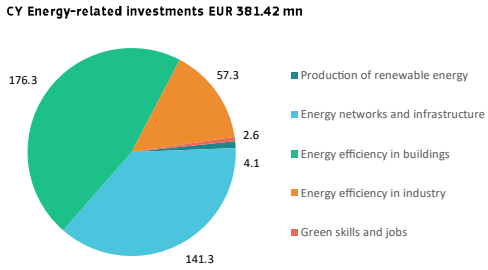
National Energy and Climate Plan (NECP)

- The **draft updated NECP** was submitted to the European Commission in July 2023.
- Member States were due to submit their **final updated NECP by 30 June 2024**, taking into account the Commission recommendations.
- **The final updated NECP** was not submitted yet to the European Commission.
- For documents and information see the dedicated webpage of the European Commission on the NECPs.

Recovery and Resilience Plan (RRP and REPowerEU chapter)

- The Cypriot RRP has a total allocation of EUR 1.0 billion in grants and EUR 0.2 billion in loans, with 45 % of the plan supporting climate objectives.
- **EUR 381 million are allocated to energy-related measures,** with the largest amount for **energy efficiency in buildings** [EUR 176.3 million]:
  - **Upgrading of public buildings** (e.g. schools, hospitals); **promoting extensive energy upgrading of housing stock** by reducing the primary and final energy consumption and the CO_2 emissions in existing households; enhancement, modernisation and upgrade of Cyprus State Hospitals.
- Overall (including also pre-financing), the Commission disbursed EUR 236.67 million to Cyprus. In July 2024, Cyprus submitted its 3rd payment request which will be assessed in Autumn 2024.

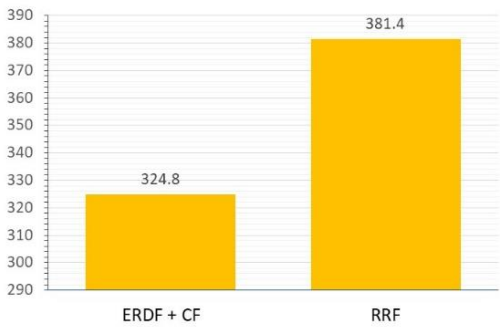
Graph 17: **Energy-related investments in the RRP (in EUR million)**



Source: European Commission

EU Funds supporting energy related investments

Graph 18: **Energy-related investments across EU funds (in EUR million) (*)**



(*) European Regional Development Fund (ERDF) + Cohesion Fund (CF): comprise EU grants & national cofinancing; RRF: comprise grants & loans. Investment categories can also differ across funds.
Source: European Commission

- **Innovation Fund: EUR 4.5 million.** For more information see the webpage innovation-fund-projects-country_en.