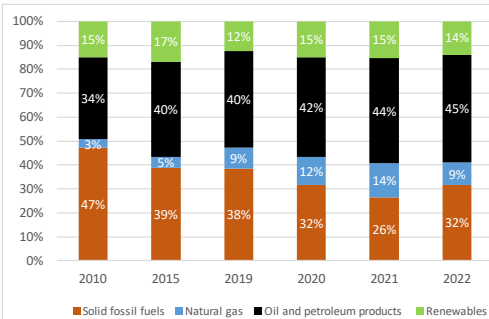




Energy fiche - North Macedonia

Key energy figures

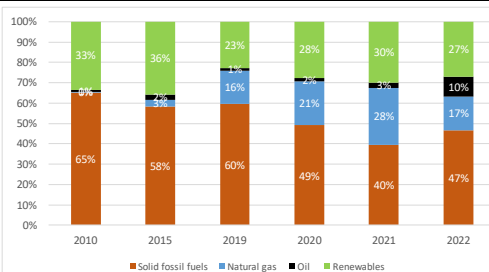
Graph 1: Energy mix



Source: Eurostat

- North Macedonia is **highly dependent on fossil fuels**, accounting for 86% of the country's energy mix. The country is particularly reliant on oil and oil products, as well as coal.

Graph 2: Electricity mix



Source: Eurostat

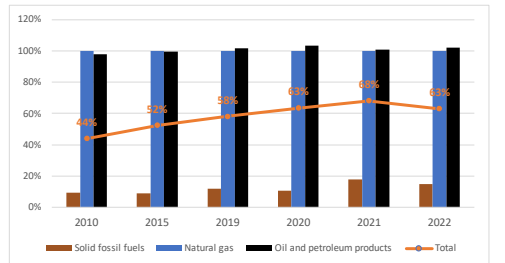
- Coal-fired power plants** have had a central role in the country's electricity sector, but dependence on them has been diminishing. In 2022, 47% of the total electricity production came from **coal** (lignite), traditionally sourced domestically. North Macedonia aims to phase out coal by 2030.

- It is followed with **renewable electricity production** (27% in 2022), dominated by hydro power plants (alone accounted for 23%).
- The country has seen a sharp uptake in deployment of **solar PV capacities** and, to a lesser extent, wind capacity. According to International Renewable Energy Agency, the solar PV capacity installed rose from **190 MW** in 2022 to **535 MW** in 2023. In the same period, wind power capacities also increased from **73** to **110 MW** ⁽¹⁾.

Energy security

1. DIVERSIFICATION OF ENERGY SOURCES AND REDUCTION OF IMPORT DEPENDENCY

Graph 3: Import dependency on fossil fuels



- (1) Combustible renewables and electricity are excluded
- (2) The total amount takes into consideration the energy mix of the country

Source: Eurostat

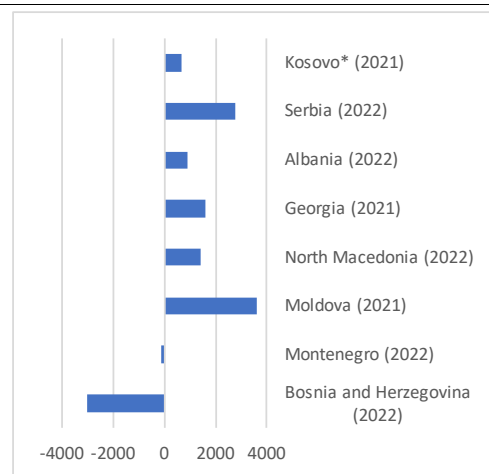
⁽¹⁾ International Renewable Energy Agency (2024). Renewable capacity statistics 2024

Integrated energy market

1. ELECTRICITY

- In 2022, the annual gross electricity production in North Macedonia stood at 5,933 GWh. The country was a **net electricity importer** in 2022, with 1,413 GWh imported more than exported.
- Process of market integration with the EU is ongoing under the **Electricity Integration Package**, adopted in the Energy Community in 2022. Due to the delay in transposition, an infringement procedure has been opened under the Energy Community Treaty.

Graph 4: **Net electricity imports (GWh)**



(1) Net electricity imports are calculated as electricity imports minus exports.

(2) The values for Bosnia and Herzegovina, Montenegro, North Macedonia, Albania and Serbia are from 2022. The 2022 values for Moldova, Georgia and Kosovo* are still not available, so 2021 data was used. Ukraine was not covered in the overview, as the latest available data was from 2020.

Source: Eurostat

2. NATURAL GAS

- Consumption of natural gas was **0.28 bcm** in 2022. This is a decrease from **0.43 bcm** in 2021.
- Energy sector (82%) accounts for the largest part of natural gas consumption, followed by industry (15%). Gas-fired power plant TE-TO Skopje (220 MW), accounts as the largest gas consumer.
- The country has no **gas storage** facility or **domestic gas production**.

- Gas is imported through a single interconnection with Bulgaria. Until 1 January 2023, the country was fully dependent on Russia for its gas supplies and vulnerable in case of potential disruptions.
- The interconnection agreement between Bulgaria's and North Macedonia's gas TSOs (in force since 1 January 2023) enabled gas supply to North Macedonia **from sources other** than deliveries under long term contract with Gazprom.
- Therefore, there is possibility for additional release of booked and non-used capacity at the interconnection point Kyustendil-Zidilovo from the Bulgarian side, enhancing the liquidity of the Macedonian gas market and regional integration.

3. ENERGY INFRASTRUCTURE

Map 1: **Electricity infrastructure including cross-border interconnections**



Source: ENTSO-E

- Power interconnection North Macedonia - Albania (400 kV Elbasan - Bitola), including new substation 400/110 kV Ohrid, is delayed due to financial issues on both sides. However, the construction is expected to start in 2024.

Map 2: **Gas infrastructure including cross-border interconnections**

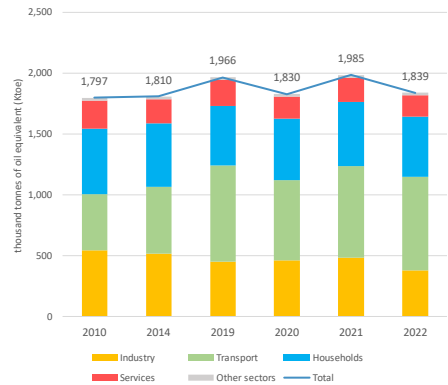


Source: ENTSO-G

- EU is supporting a construction of natural gas **interconnector between North Macedonia and Greece**. The project is a priority project under the CESEC High-Level Group. The pipeline is one of the flagship projects in the Economic and Investment Plan. Construction of the project has started and is expected to finish in 2025, but concerns have been raised regarding public participation and the Environmental Impact Assessment (EIA).
- **North Macedonia and Serbia** are looking to construct a first gas interconnection between the two countries. The project is a priority project under the CESEC High-Level Group. The construction has not started yet. The Environmental and Social Impact Assessment (ESIA) and Feasibility study are being carried out with the support of WBIF and ERBD (expected results for 2025).

consumption by 2030 at **2 Mtoe**, and for primary energy consumption at **2.3 Mtoe** which is in line with the targets set by the 2022 Energy Community Ministerial Council Decision.

Graph 6: **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

4. ENERGY POVERTY

Table 1: **Energy poverty**

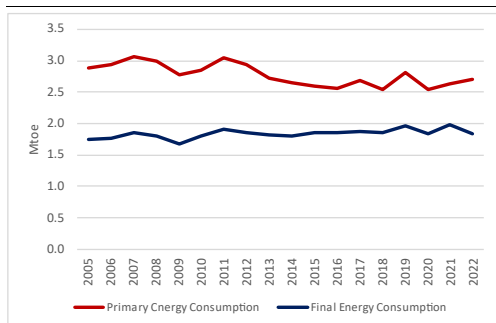
	North Macedonia			EU		
	2020	2021	2022	2020	2021	2022
Arrears on utility bills (households %)	29.9%	:	:	6.5%	6.4%	6.9%
Inability to keep home adequately warm (household %)	23.8%	:	:	7.5%	6.9%	9.3%
Population living in dwelling with presence of lead, damp and rot (population %)	13.0%	:	:	14.8%	:	:

Source: Eurostat

Energy efficiency

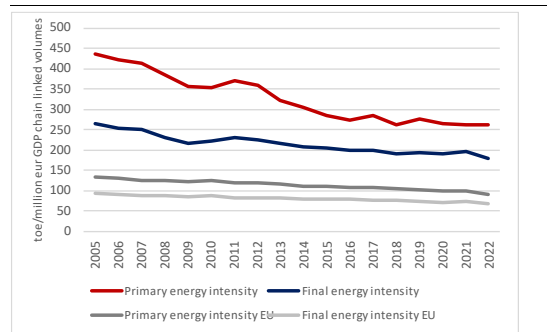
1. ENERGY EFFICIENCY

Graph 5: **Primary and final energy consumption**



Source: Eurostat

Graph 7: **Primary and final energy intensity**



Source: Eurostat

2. ENERGY SAVINGS IN BUILDINGS

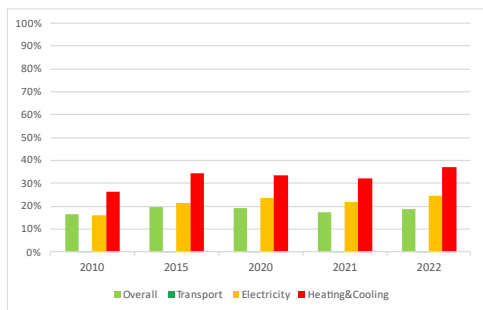
- The Law on Energy Efficiency transposed the Energy Performance of Buildings Directive. The adoption of drafted rulebooks on energy audits of buildings and on energy performance of buildings is still pending. The long-term buildings renovation strategy is still not finalized.

- The NECP of North Macedonia adopted in 2022 sets an energy efficiency target for the planned total maximum level of final energy

Decarbonisation

1. SECTORAL SHARE OF RENEWABLE ENERGY

Graph 8: Share of renewable energy sources

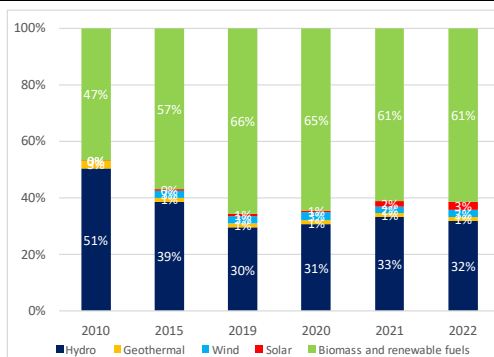


(1) In % of gross final consumption of energy.

Source: Eurostat

- In **2022**, North Macedonia recorded a share of renewable energy in gross final energy consumption of **18.6%**, which is below its 2020 target of **23%**.
- The NECP of North Macedonia adopted in 2022 set a new target for planned minimum share of renewable energy in gross final energy consumption by **2030 at 38%**, which is in line with the target set by the 2022 Energy Community Ministerial Council Decision.

Graph 9: Renewable energy mix



(1) In % of gross final consumption of energy.

Source: Eurostat

Enlargement

- North Macedonia applied for EU membership in **March 2004** and was granted EU candidate status in **December 2005**.
- In **March 2020**, the Council endorsed opening of accession negotiations with North Macedonia and Albania. The first Inter-Governmental Conference on accession negotiations with North Macedonia took place in **July 2022**. The first step in the accession negotiations process, the analytical examination of the EU acquis or the 'screening', was simultaneously launched.
- As regards cluster 4⁽²⁾, North Macedonia has some level of preparation in **environment and climate change** (chapter 27), moderate preparation in the areas of **transport** (chapter 14) and **energy** (chapter 15) and good level in **trans-European networks** (chapter 21)⁽³⁾.

Energy partnerships

- North Macedonia is engaged in a number of regional cooperation initiatives and organizations, such as the **Energy Community, Transport Community, Central European Free Trade Agreement (CEFTA), CESEC, Adriatic and Ionian Region (EUSAIR), Union for the Mediterranean, the South-East European Cooperation Process (SEEC) and the Regional Cooperation Council**.
- North Macedonia is also a member of **IRENA, IAEA and Energy Charter**.

⁽²⁾ Following the introduction of the revised methodology for the accession negotiations in February 2020, negotiating chapters are now divided in six thematic clusters.

⁽³⁾ European Commission (2023), North Macedonia 2023 Report, SWD(2023) 693 final

National Energy and Climate Plan (NECP)

- North Macedonia adopted its National Energy and Climate Plan (NECP) on 31 May 2022⁽⁴⁾⁽⁵⁾.
- North Macedonia was expected to review and update its NECPs in line with the Energy Community acquis by 30 June 2024.

⁽⁴⁾ The Energy Community Secretariat issues its [Recommendations](#) on 20 November 2020.

⁽⁵⁾ The NECP was adopted before the adoption of the Energy Community 2030 targets (December 2022).