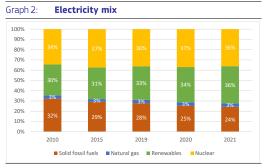


State of the Energy Union 2023 Slovenia

Key energy figures

Graph 1: **Energy mix** 100% 90% 80% 60% 31% 40% 30% 20% 10% 2010 2015 2019 2020 2021

Source: Eurostat



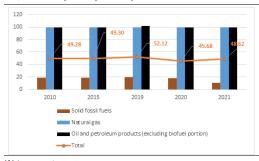
Source: Eurostat

- Fossil fuels still play a strong role in Slovenia's energy mix.
- It remains dependent on coal for electricity generation, which in 2021 accounted for almost a quarter of the country's electricity mix. Nuclear and renewable energy account each for 36%.

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: Furostat

- decrease Slovenia managed to its dependence on **Russian gas** by reestablishing gas imports from Algeria in 2023. The contracted amount amounts to 0.3 billion cubic meters (bcm) or a third of Slovenia's natural gas supply, which in 2021 reached 0.92 bcm.
- Limited availability of the domestically produced coal in 2022, needed primarily for electricity generation, coupled with high reliance on imported fossil fuels, such as oil products and natural gas have exemplified the sensitivity of Slovenia's economy to global price developments.

FLEXIBILITY OF THE ENERGY SYSTEM

Energy storage: Slovenia has no underground gas storage facilities.

Integrated internal energy market

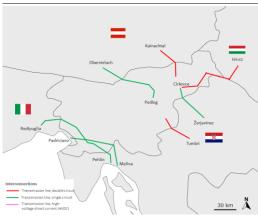
1. ELECTRICITY INTERCONNECTIVITY

| 2023 | 2030 target |
|--------|--------------|
| 82.08% | At least 15% |

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

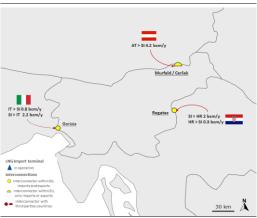
2. ENERGY TRANSMISSION INFRASTRUCTURE

Map 1: Cross-border electricity interconnections



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

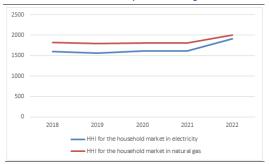
Map 2: Cross-border gas interconnections



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



Source: CEER 2023 out of ACER's Energy Retail and Consumer Protection 2023 Market Monitoring Report

 In 2022 in Slovenia, the market share of the three largest suppliers reached 63% for electricity and 68.9% for natural gas.

Rollout of electricity smart meters

 Slovenia had a high electricity smart meter rollout, with 91.9% of household consumers being equipped with smart meters in 2022. (1)

4. ENERGY POVERTY AND JUST TRANSITION

| Table 1: Energy poverty | | | | | | | | | |
|---|-------|----------|------|--|-------|------|------|--|--|
| | | Slovenia | | | EU | | | | |
| | 2020 | 2021 | 2022 | | 2020 | 2021 | 2022 | | |
| Arrears on utility bills (households %) | 9.4% | 7.7% | 6.5% | | 6.5% | 6.4% | 6.9% | | |
| Inability to keep home adequately warm (household %) | 2.8% | 1.7% | 2.6% | | 7.5% | 6.9% | 9.3% | | |
| Population living in dwelling with presence of lead, damp and rot | 20.8% | : | : | | 14.8% | : | : | | |

Source: Eurostat

(population %)

Just transition plan: The Slovenian Territorial Just Transition Plans outlines the transition away from coal mining in the regions of Savinjsko-Saleška and Zasavje. The plans set out how the Just Transition Fund (JTF), with a national allocation of 258€ million, will support the development of renewables, economic diversification, and modernisation of industries. The JTF will primarily support regions heavily dependent on industries such as coal mining. Coal phase-out commitment in 2033.

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

5. ENERGY PRICES

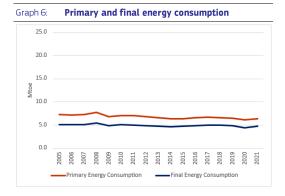
(1) On electricity, the band consumption is for DC households and ID for industry $\,$

(2) On gas, the band consumption is D2 for households and I4 for industry

Source: Eurostat

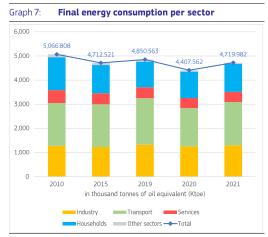
Energy efficiency

1. ENERGY EFFICIENCY



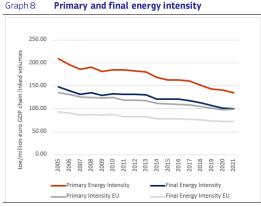
Source: Eurostat

 In 2021, Slovenia's Primary Energy Consumption (PEC) amounted to 6.33 Mtoe, 2.9% lower than in 2019, while its Final Energy Consumption (FEC) amounted to 4.72 Mtoe, 2.7% lower than in 2019, despite the COVID-19 crisis recovery.



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

Source: Eurostat



Source: Eurostat

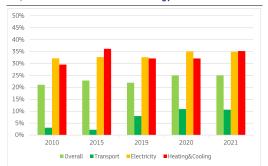
2. ENERGY SAVINGS IN BUILDINGS

- In 2020 the total floor area of residential buildings amounted to 63.7 million of m² in Slovenia.
- As per its 2020 Long Term Renovation Strategy (LTRS), Slovenia targets to achieve -17% of energy savings by 2030 compared to year 2020 in the building sector.
- In 2021, the final energy consumption of residential buildings decreased by 4.45% compared to 2019.
- As per the European Heat Pump Association (EHPA), there are no data available for Slovenia.

Decarbonisation and climate action

1. SECTORAL SHARE OF RENEWABLE ENERGY

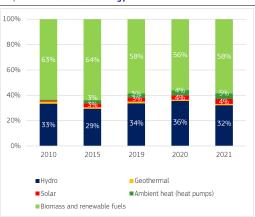
Graph 9: Share of renewable energy sources



(1) In % of gross final consumption of energy

Source: Eurostat

Graph 10: Renewable energy mix

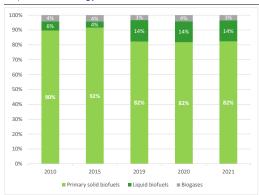


(1) In % of gross final consumption of energy

Source: Eurostat

2. BIOENERGY DEMAND

Graph 11: Bioenergy mix

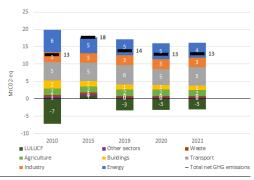


(1) Composition of bioenergy, in % of gross inland consumption of energy.

Source: Eurostat

3. GREENHOUSE GAS EMISSIONS

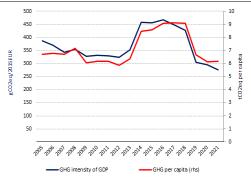
Graph 12: Greenhouse gas emissions by sector



- (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).

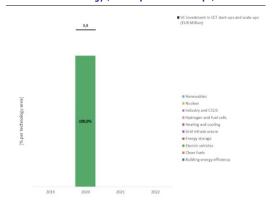
- With 277 gCO2eq/2015EUR, Slovenia lies above the EU average in terms of GHG intensity of GDP.
- With 6 tonnes of CO2 equivalent per capita, Slovenia is below the EU average in terms of GHG emissions per capita.
- For more detailed information on country profiles see <u>Progress made in cutting emissions</u> (europa.eu).

Research, innovation and competitiveness

1. INVESTMENT IN R&I

 Data for public investment in Energy Union R&I priorities are not available.

Graph 14: Venture capital investment in clean energy technology (start-ups and scale-ups)

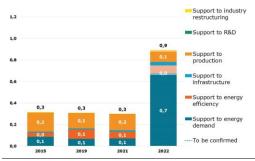


(1) Firms typically use venture capital to expand, break into new markets, and grow faster. Venture capital is essential for the growth of innovative firms and it is key to foster the EU's competitiveness and to strengthen the EU's technology sovereignty in the clean energy sector.

Source: JRC SETIS 2023

2. ENERGY SUBSIDIES

Graph 15: 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 16: Energy subsidies by carrier



- (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

European Semester 2023

Country Specific Recommendation (Energy):

Continue efforts to diversify gas imports and reduce overall reliance on fossil fuels by accelerating the deployment of renewables, in particular by further simplifying and shortening the permitting procedures, especially environmental ones, and strengthening the electricity grid, as well as improving its management, including through digitalisation. Increase the implementation of energy efficiency measures, in particular in the building sector, promote the electrification of the transport sector, and step up policy efforts aimed at the provision and acquisition of the skills needed for the green transition. (2)

For more information see the <u>2023 European</u> <u>Semester Country Report</u>.

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.

- The Slovenian RRP was approved by the Council on 28 July 2021.
- The implementation of the measures proposed in the RRP would allow Slovenia to access EUR 1.78 billion in grants and EUR 705 million in loans.
- The Commission disbursed so far EUR 280.65 million to Slovenia. A 2nd payment request was submitted on 15 September 2023 and it's currently under assessment.
- On 14 July 2023 Slovenia submitted a request to revise its RRP, adding a REPowerEU chapter.
- The REPowerEU chapter proposed by Slovenia includes two new investments, and three scaled-up measures.
- The amended RRP takes into account the revised RRF grant allocation for Slovenia decreased to EUR 1.49 billion. It includes also the EUR 116 million REPowerEU grant allocation and EUR 5 million voluntary transfer from the Brexit Adjustment Reserve. Slovenia has also requested EUR 367 million additional loans. The total amount available is therefore EUR 2.7 billion.
- **48.9%** of these funds are **allocated** for measures contributing **to climate objectives**, up from the 42.5% of the original plan.
- The amended RRP, including the REPowerEU chapter, was approved by the Council on 17 October 2023.
- For more information visit the <u>Recovery and</u> <u>Resilience Scoreboard</u>.

Recovery and Resilience Plan (RRP) and REPowerEU chapter

Council of the European Union 9850/1/23.