

Republic of Slovenia Ministry for environment, climate and energy

Energy Efficiency in Slovenia

Art. 4 & 8



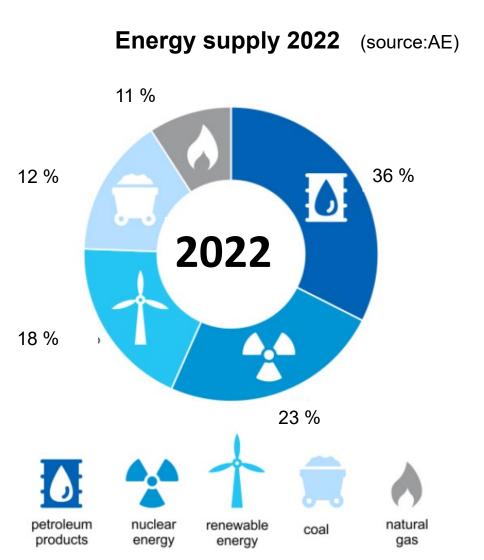
Erik Potocar, MSc 23 th March 2024

General energy information - Slovenia

Population 2 mio

Final Energy (2022) cca. 201 PJ

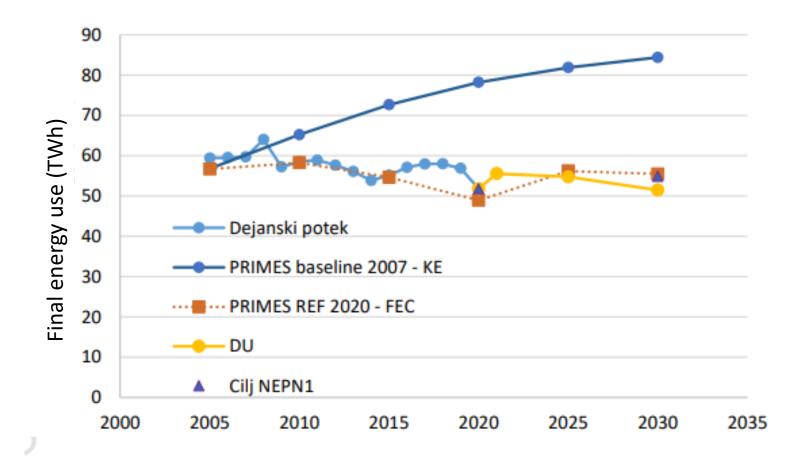
Energy Dependency cca. 48 % (without nuclear fuel)



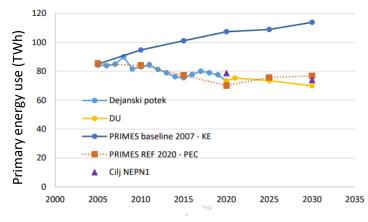
Draft NECP - EE goals

- accelerated improvement of energy and material efficiency in all sectors (consider energy efficiency first)
- to ensure the systematic implementation of adopted policies and measures so that the use of final energy does not exceed 51 TWh (4,426 ktoe - adopted NECP 2020 has 54.9 TWh (4,717 ktoe)
- the level of primary energy use in 2030 will not exceed 73.9 TWh (6,356 ktoe)
- by 2030, improve energy efficiency and the volume of annual savings within the framework of the mandatory savings scheme in accordance with the EED 2023
- reduce final energy use in buildings by 20% by 2030 compared to 2020
- active and accelerated support to the industry to increase efficiency and competitiveness
- accelerate the implementation of programs for information, awareness and training of various target groups
- corrected indicative national contribution 4.32 Mtoe (ambition gap mechanism)

Progress of achieving the contribution to EE by 2030 - final energy

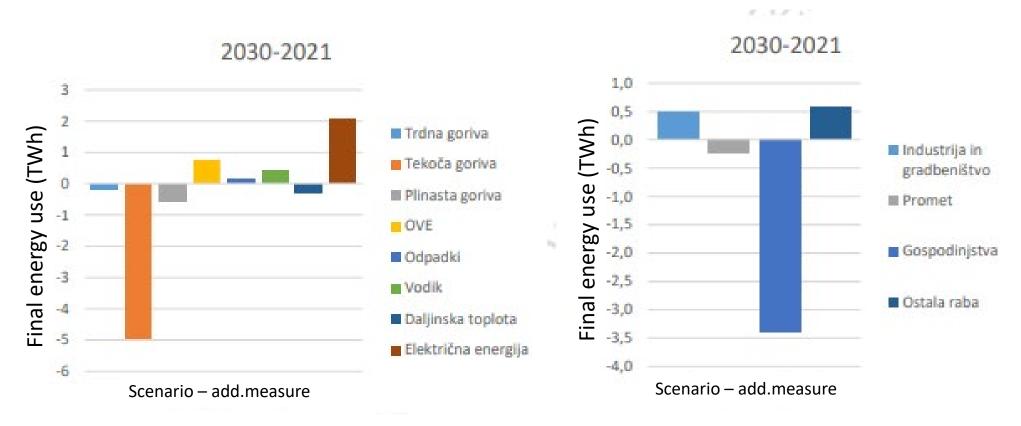


Progress of achieving the contribution to EE by 2030 in primary energy



by 2030 it can achieve lower energy consumption according to PRIMES 2020

Expected changes in final energy use by individual sectors and fuels

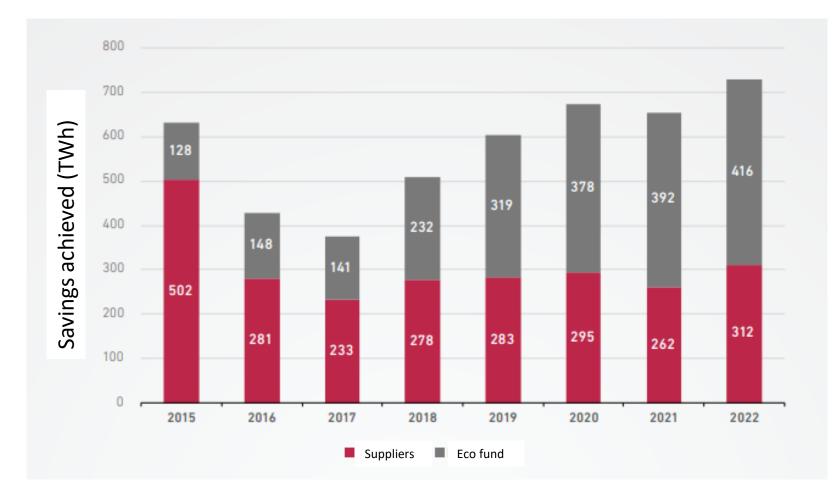


SI will continue the implementation of the scheme for the mandatory achievement of energy savings bymeasures of energy suppliers and the ECO fund, and upgraded the scheme in accordance with the changes tothe EED2021202220232024202520262027202820292030

Savings in the period 2021 – 2030

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Share	0,8	0,8	0,8	1,3	1,5	1,5	1,5	1,9	1,9	1,9
Volume of annual savings (GWh)	458	458	458	745	859	859	859	1089	1089	1089

Achieved energy savings in the period 2015-2022



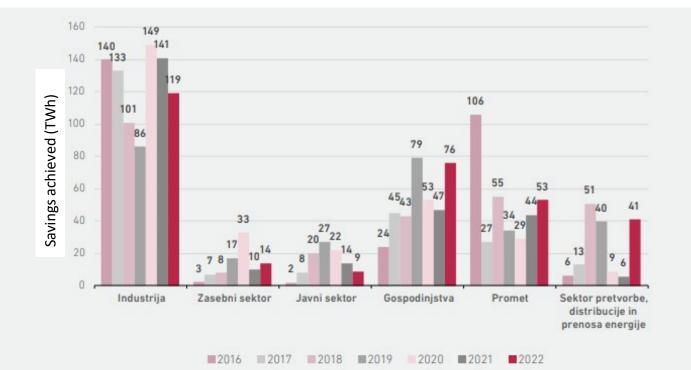
Energy suppliers sold 47,668 GWh

22.033 GWh - motor gasoline and diesel fuel 25.635 GWh (EE, heat, natural gas, liquid and gaseous fuels)

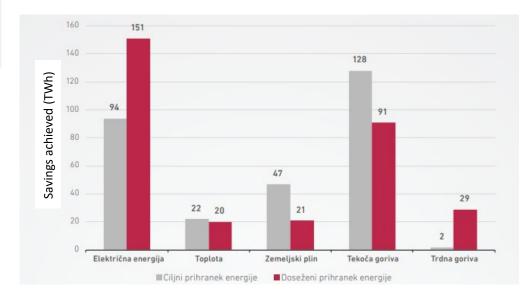
The total savings target for 2022 has been achieved

Suppliers achieved 312 GWh of energy savings in 2022 with their contribution to the implementation of measures for efficient energy use.

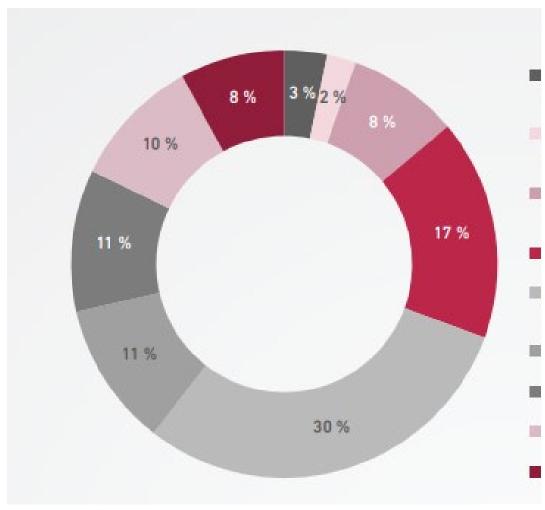
Energy savings by sector in the period 2016-2022



Target and achieved energy savings according to the type of energy supplier (2022)



Shares of energy savings by individual measures implemented within the EE obligation scheme in 2022



Scenario – add.measure

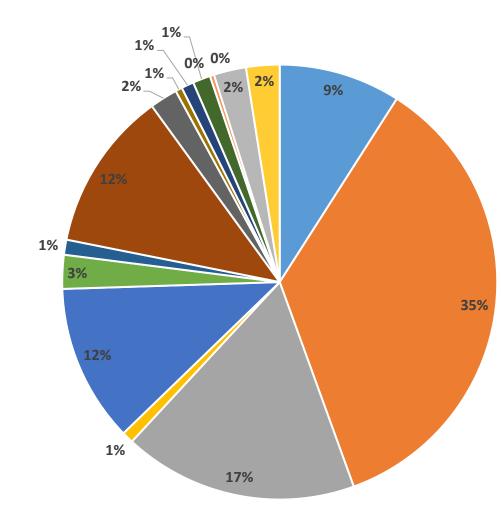
Replacement of boilers with new gas boilers

Replacement of boilers with biomass boilers

Installation of advanced measuring systems

- Adding an additive to the motor fuel
- CHP
- Energy efficient lighting
- Self-supply of electricity
- Measures from EA
- Another

Energy savings according to measures for the period 2018-2022 partly financed with non-returnable funds of the Eco fund



- Biomass boilers
- Heat pumps
- Photovoltaic self-sufficient system
- Installation of windows, doors,..
- Thermal insulation of the facade
- Thermal insulation of the roof
- Installation of ventilation with heat recovery
- Natural gas condensing boilers
- SNES Public buildings
- Energy audits
- Environmentally friendly personal vehicles
- Changing the lighting
- Utilization of excess heat
- Energy optimization
- Tires
- Other measures

Subsidy for heat pumps

- heat pumps for central heating and sanitary water (Eco fund - public tender)
- in 2023 subsidy for 15.392 heat pumps, 165 MW total power, 34 mio EUR
- subsidies up to 20% of eligible costs
- a maximum of 2,500 EUR for a heat pump w/w (4,000 EUR if replaced with an old heating device)
- maximum 1000 EUR for a heat pump a/w (2500 EUR if replaced with an old heating device)
- it is also possible to get a loan: fixed interest rate: 2.8%, variable interest rate: 3M EURIBOR + 1.0%
- higher subsidy, if several measures are combined
- for the energy poverty possibility of 100% subsidy

	Energy savings per EUR				
Measure	1 subsidy (kWh/EUR)				
Industry waste heat	406,35				
Energy optimization	52,07				
Energy audits	27,89				
Renovation of existing lighting	9,11				
Thermal insulation of the roof	8,37				
Heat pumps	7,40				
Connection to district heating	6,97				
Self-supply - NET METERING	6,51				
Thermal insulation of the					
facade	6,09				
biomass boilers	4,31				
Renovation of thermal stations	4,02				
Energy management	3,12				
Photovoltaics for heating					
sanitary water	2,25				
Installation of ventilation with					
heat recovery	1,67				
Full renovation of residential					
buildings	1,64				
nZEB Public buildings	1,04				
nZEB residential buildings	0,89				
Purchase of environmentally					
friendly vehicles	0,78				
Bikes	0,21				

Some new EE measures "NECP"

Buildings

Renewal of cultural heritage buildings and other specific groups of buildings

Households

Instruments for financing Renovations in Buildings with Multiple Owners

Industry

Special financial incentives to increase the efficiency in industries (use of waste heat, connection to district heating systems,...)

Transport

Focused promotion of public passenger transport

Challenge EED Article 4

- the goals are very ambitious **but achievable** if the politics will supports them and the planned measures will be implemented
- the risk of **excessive regulatory pressure** on the industry may represent a reduction in competitiveness
- transport has a **very large influence** on the final energy consumption in SI, which, due to its high "volatility", expected economic situation and large share in energy consumption (40% of total final energy consumption), if measures are not implemented, may threaten the fulfillment of the set goals
- implementation of energy poverty projects in accordance with the requirements of Article 8 (share of savings must be equal to the share of energy poor households, different approaches are needed and savings are often more difficult to achieve)



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