ÚRAD PRE REGULÁCIU SIEŤOVÝCH ODVETVÍ

Latest developments in the electricity sector in Slovakia

Update by URSO (Regulatory Office for Network Industries)

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Chairman

ERRA EMER Committee Meeting
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The Position and Responsibilities of URSO

The Regulatory Office for Network Industries (the Office or URSO):

- A central authority of state administration with nationwide competence

- The Office, in the execution of its functions, acts impartially and independently. State authorities, local government bodies, other public authorities, or any other entities shall not influence the Office in the performance of its functions.

- The regulatory scope under this law includes:

a) setting of tariffs in network industries and the conditions for their application,

b) conditions for the performance of regulated activities.

- URSO bodies consist of URSO Chairman and the Regulatory Board

- The fundamental document guiding the activities of the Office is the Regulatory Policy - a strategy that regulates the implementation of regulation during a fixed regulatory period.

- **The ongoing 6th regulatory period, spanning a duration of 5 years until 2027**, seeks to establish a sufficiently stable environment conducive to the strategic planning and realization of investments by regulated entities on an economically rational basis.

- A pivotal factor influencing this regulatory period is the evolving landscape of European legislation, notably the comprehensive set of regulations and directives known as the "**Clean Energy for All Europeans," commonly referred to as the 4th energy package**.

- The Regulatory Policy takes into account the experiences gained during previous regulatory periods. The main lesson from the recent past is:

so-called INVISIBLE HAND OF THE MARKET DOESN'T WORK

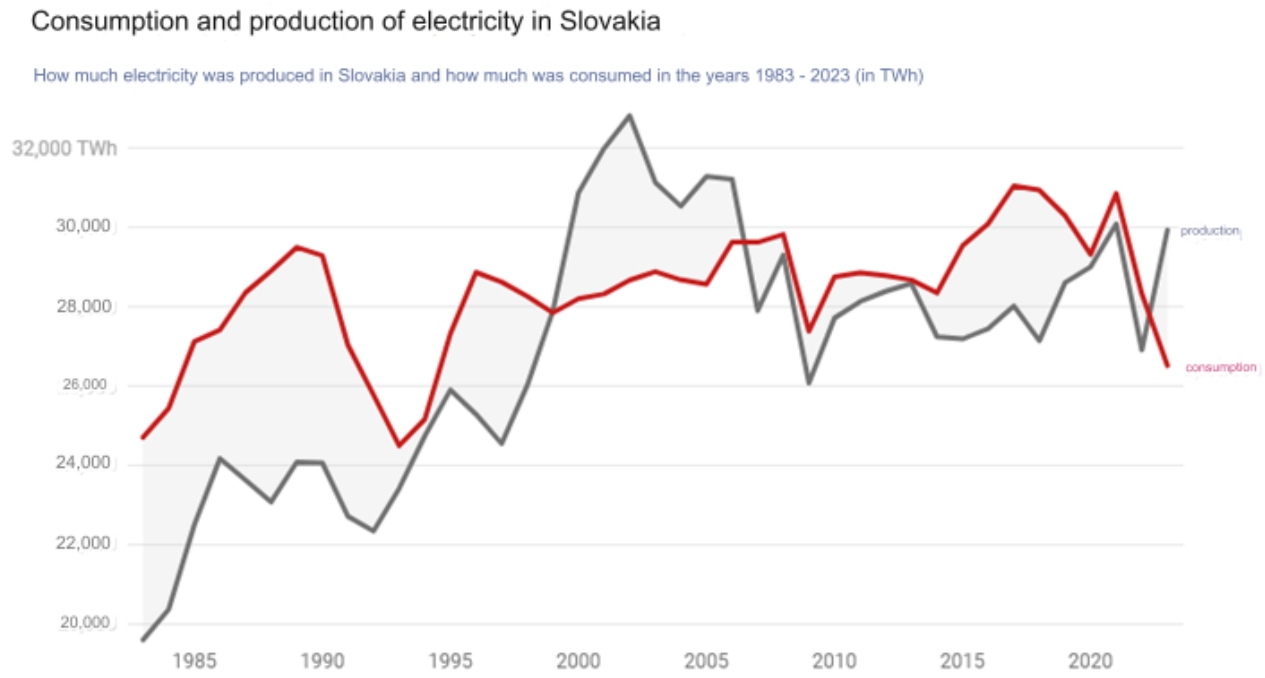
The main objectives of the Office

Ensuring reasonable prices of energy for consumers on a non-discriminatory and transparent basis

- **Consistently seeking to enhance security of electricity and gas supply** – cooperation with EU member states, advancing integration and creation of European single electricity and gas markets;
- **Creating conditions for increasing and promoting competition -** reasonable tariffs – appropriate regulatory methods;
- **Optimising support of electricity generation from RES** – reasonableness of impacts on end energy prices;
- **Achieving proper perception of regulation** – alignment with EU rules (cost recovery, reasonable profit);

The Office is going to focus on finding appropriate tools for adequate **tariff and non-tariff (technical) regulation** to protect consumers, to set the rules in such a way as to create the prerequisite for appropriate and reasonable conditions for all market participants.

National generation and consumption 2023 (electricity) - Slovakia



Electricity generation and sale
liberalised in 2005 – wholesale price is not regulated.

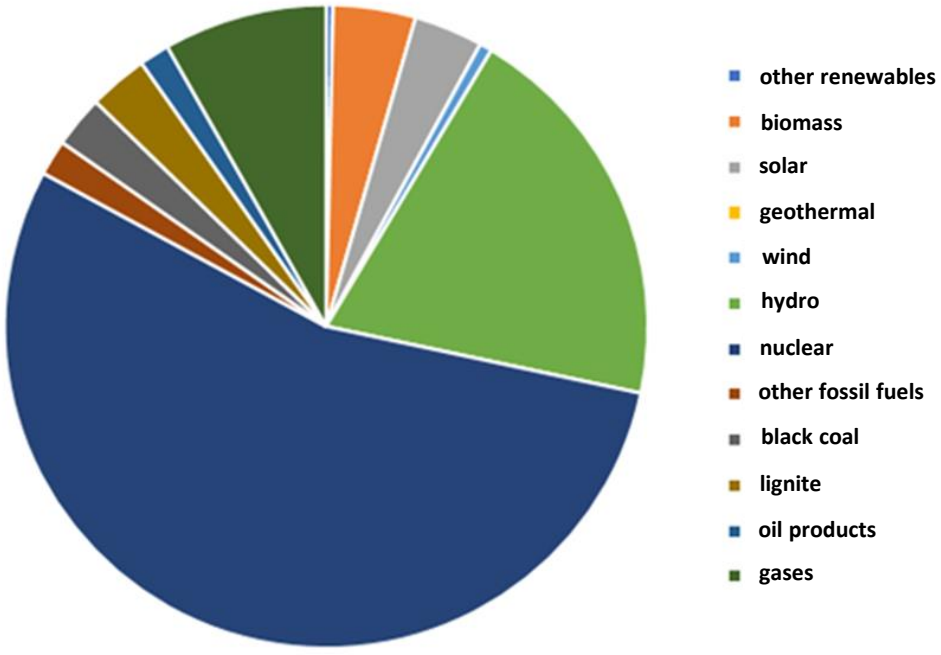
Prices of electricity import and export are fixed on the basis of bilateral contracts between buyer and seller.

Since January 2005 volumes of cross-border trades and transmission through Slovakia´s transmission system are not limited.

National
generation 2023: 29.9 TWh
consumption 2023: 26.5 TWh

generation 2022: 26.9 TWh
consumption 2022: 28.3 TWh

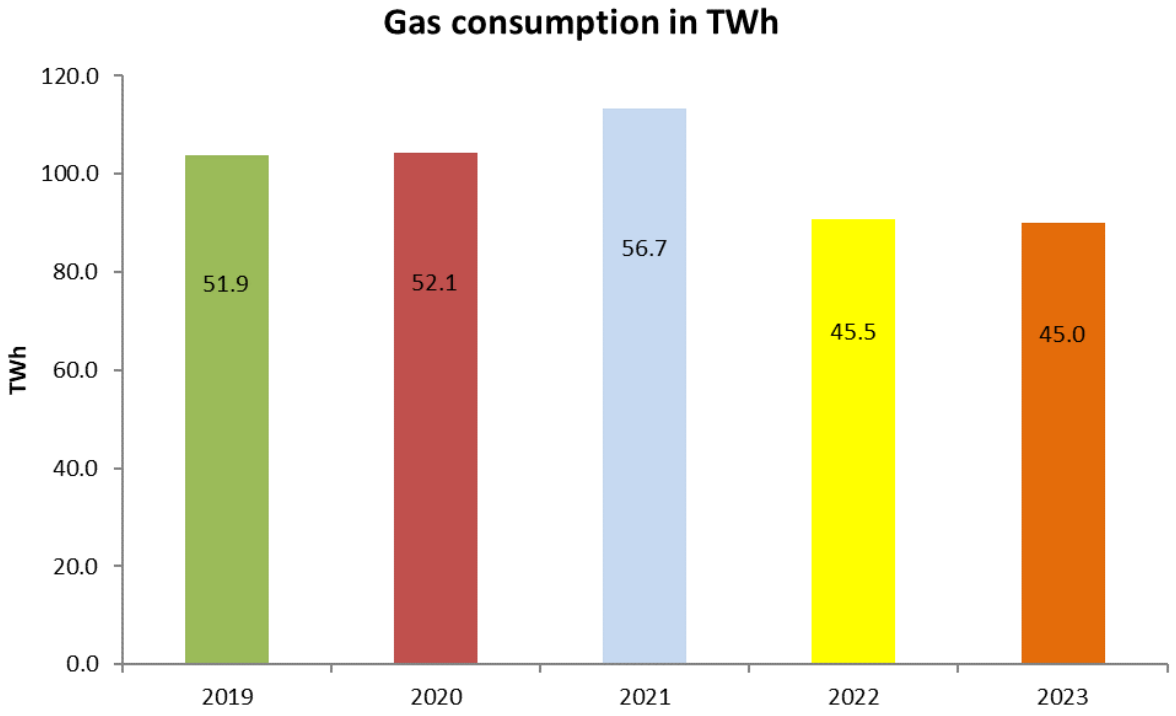
Slovakia´s energy mix in 2022: share of individual energy sources in total electricity generation (defined according to Energy Act)

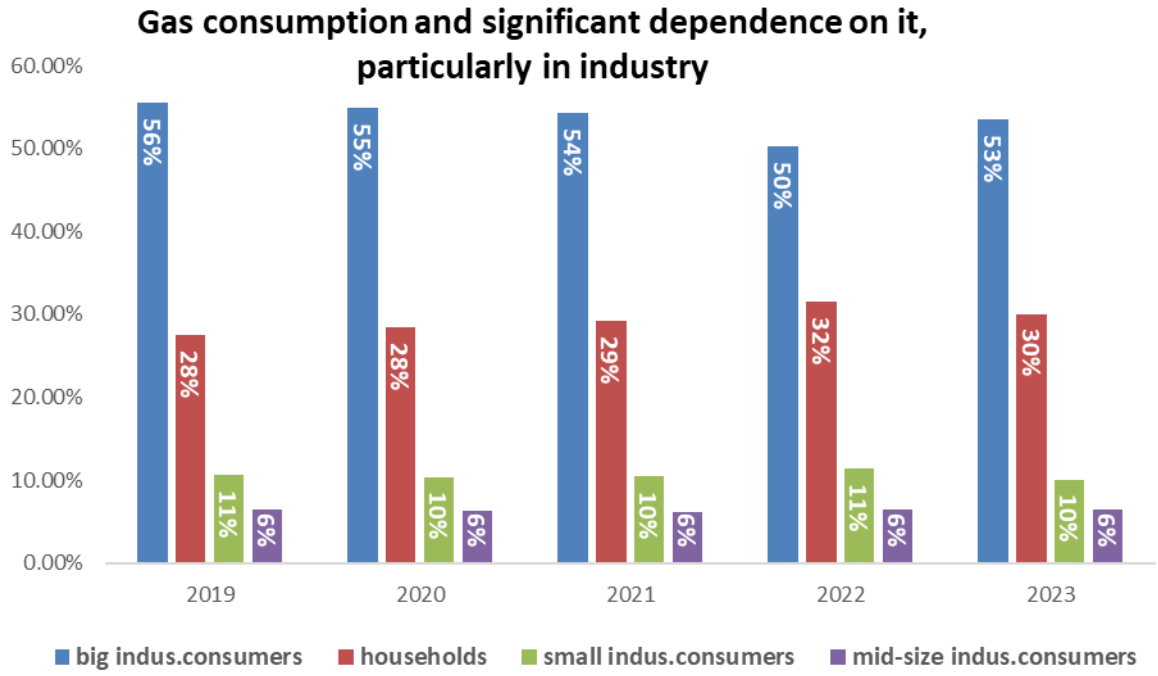


Generation Mix 2022	
other renewables	0.38%
biomass	4.14%
solar	2.57%
geothermal	0%
wind	0.01%
hydro	14.79%
nuclear total	60.11%
other fossil fuels	1.95%
black coal	2.55%
lignite	3.28%
oil products	1.66%
gaseous fuels	8.56%

Slovakia's future energy mix will take into account three pillars **- security of supply, technical availability and energy price.**

Natural gas consumption 2023 - Slovakia

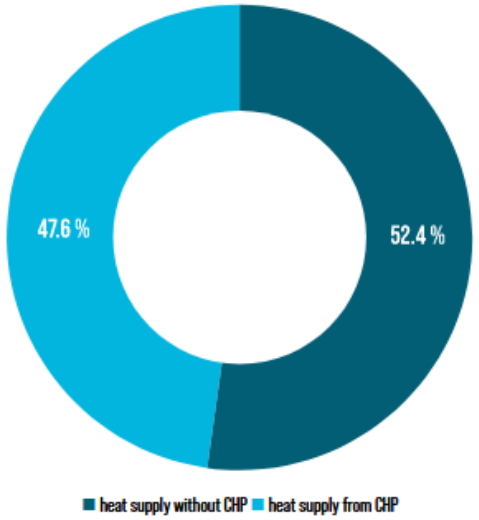




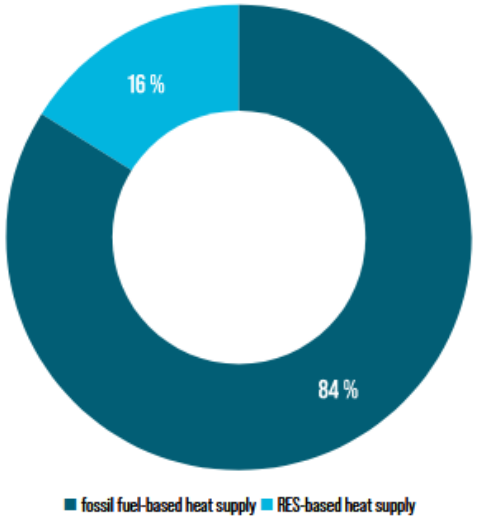
Heat generation and supply 2022 - Slovakia

Total heat supply in 2022 reached 15 033 GWh, up 0.7% compared to 2021. Total heat supply includes supply for heating and domestic hot water for residential and non-residential buildings and supply for technological process consumption.

Share of heat supply from CHP



Share of heat supply from RES



Share of fuel types in heat generation

Year	natural gas [GWh]	biomass [thous. t]	coal [thous.t]	biogas [GWh]	heating oil [thous.t]
2018	8 637	877	586	326	128
2019	8 597	1 062	595	326	127
2020	8 582	1 020	554	347	127
2021	8 865	1 009	411	337	127
2022	9 338	927	335	503	127

Price regulation in water

Drinking water, wastewater:

- Regulated activities are: production, distribution and supply of drinking water through public water pipes and wastewater treatment and collection through public sewerage
- Regulation method: *price cap* – setting of maximum price
- Legislation: Act No. 250/2012 Coll. On regulation in network industries (Regulatory Act) as amended

  URSO decree No. 323/2022 Coll. establishing price regulation in the production, distribution and supply of drinking water by public water pipes and the treatment and collection of wastewater by public sewerage, as amended by URSO Decree No. 498/2023 Coll.

- Regulated entities: 14 major water utilities (company supplying from 2 up to 50 mil. m^3 of drinking water and treating and collecting from 2 up to 50 mil. m^3 wastewater)

  127 minor companies

  549 municipalities (operating a public water supply system of 3rd category – for less than 2 500 consumers and/or public sewerage system of 3rd category – for less than 2 000 equivalent inhabitants)
- Adopted decisions for the 2023 – 2027 regulatory period: URSO adopted 141 price decisions and 549 price confirmations (for municipalities operating public water pipes and sewerage of 3rd category)

Price regulation in water

surface water – utilisation of water courses:

- **Regulated activities are** abstraction of surface water from watercourses
  exploitation of watercourses´ hydropower potential
  abstraction of energy water from watercourses

- **Regulation method** setting of fixed price

- **Legislation** Act No. 250/2012 Coll. On regulation in network industries (Regulatory Act) as amended
  URSO Decree no. 445/2022 Coll. establishing price regulation for the abstraction of surface water and energy water from watercourses and the exploitation of the hydro-power potential of watercourses

- Regulated entities one state-owned, nation-wide company – Slovenský vodohospodársky podnik, š. p.

- Adopted decisions for the 2023 – 2027 regulatory period: URSO adopted 1 price decision.

URSO decisions – utilization of extraordinary regulation

- URSO has contributed to **reducing the spending of compensations from the state budget** through its decisions adopted since December 6, 2023, and adjusted tariffs (see table) applicable for 2024; **the total savings amount to approximately 439,135,424 euros**.
- Tariff adjustments include a **cost reduction in the tariff for system operation - 144,576,690 euros, tariff for system services - 83,857,480 euros, a reduction in the allowed volume of electricity losses - 87,200,000 euros, and a correction in the costs of purchasing electricity for losses - 123,701,254 euros.**

Overview of anticipated cost savings with an impact on the Slovak State Budget	the year 2024
Tariff for operating the system (TPS)	-144,576,690
Tariff for system services (TSS)	-83 857 480
Extraordinary regulation - reduction of the permitted amount of electricity losses in 2024 to the level expected amount of electricity losses during electricity distribution in 2023	-87,200,000
Extraordinary regulation - Correction of electricity purchase costs for losses in 2022 = EUR 0, not taken into account in tariffs for losses in electricity distribution in 2024	-123,701,254
Total expected savings in EUR	-439 335 424

Current revisions to secondary legislation – in progress

- Decree establishing price regulation in the electricity and gas sectors
- Changes **in price regulation in electricity generation, transmission, distribution and supply, grid connection and in gas transmission, distribution and supply**.
- **Electricity sector**: Adjustment of costs, including the price of electricity included in the calculation of the maximum price for electricity supply to vulnerable consumers, as well as in the calculation of the electricity price for transmission and distribution losses, and also adjustment of the calculation of prices for grid connection and access.
- **Gas sector**: Adjustment of costs, including the price of gas included in the calculation of the maximum price for gas supply to vulnerable consumers, as well as in the calculation of price for losses and own consumption in the distribution network, as well as adjustment of the calculation of prices for network access.
- Changes will also affect price regulation of electricity generation from **renewable energy sources and highly efficient co-generation** in accordance with the applicable national legislation, and price regulation of gas supply for vulnerable gas consumers according to the Regulatory Act.
- **coming into effect of both new decrees expected from July 1, 2024**

Single Day-Ahead and Intraday Market – Cross-Border Trading

- Regulation (EU) No 2019/943 on the internal electricity market imposes obligations:
- in December 2023, URSO **reappointed** OKTE as the nominated electricity market operator for a period of 4 years to implement the European single day-ahead and intraday markets.
- OKTE provides market participants with the **opportunity to trade within intervals** at least as short as the imbalance settlement period (ISP) ISP 15´ = **shortening of the Market Time Unit (MTU) from 60 minutes to 15 minutes** (go-live expected Q1 2025)
- **Intraday Auctions** (IDAs) project is currently scheduled to be operational on June 13, 2024. Its aim is to harmonize the calculation and allocation of cross-border capacities in the intraday market and to price intraday cross-border capacities to reflect their scarcity at any given time, thus sending an appropriate price signal.

Market type	In operation	Period		Pairing	
		60 min	15 min	Cross-border	Local (backup)
Day-ahead (DA) - auction	Yes	x		Yes	Yes
Intraday (ID) - continuous trading	Yes	x	x	Yes	Yes
Intraday auctions (IDA) - auction	No		x	Yes	No

OKTE - Slovakia´s nominated electricity market operator (NEMO)

➢ the services provided by OKTE are regulated by URSO and include primarily:

- Organizing and evaluating the organized short-term cross-border electricity market, which is a **monopolistic activity** aimed at facilitating electricity trading for market participants within a defined territory in collaboration with other operators of coupled markets.
- Imbalance settlement, management and collection of measured data, central billing.
- Organizing and settling support for electricity production from renewable energy sources and highly efficient co-generation, along with maintaining database.
- Transfers and operation of the market for guarantees of origin.

EDC – energy data center

- The intention is to implement the requirements of the Clean Energy Package (CEP) in the area of the new electricity market design, which establishes new activities and actors in the electricity market and promotes the development and integration of renewable energy sources.
- Creating and implementing a **central data exchange platform aims to**:
  - **Simplify and standardize data exchanges** in the electricity market.
  - Introduce **new data flows that enable the participation of new market participants** and provide data accessibility to end consumers.
  - Ensure **sufficient flexibility for safe and reliable operation of the electricity grid**.
  - **Enable** market participants, especially electricity consumers, to explore new electricity supply options and promote reduced consumption, while being less reliant on centralized supply.

EU legislation – lacking definition of energy poverty

➢ **Directive (EU) 2019/944** should enhance national policies that prioritize vulnerable and **energy-poor consumers**.

Article 29 **Energy Poverty**

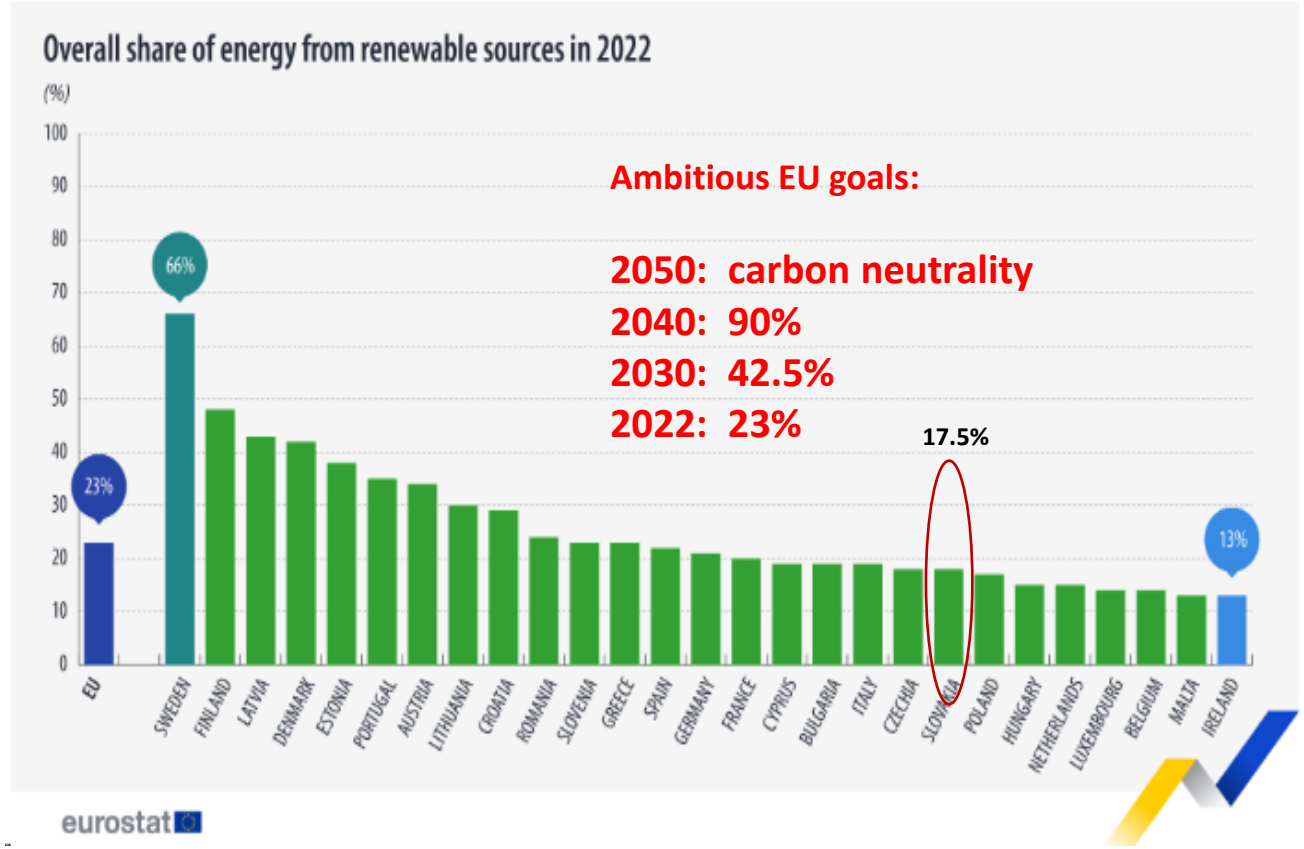
- When assessing the number of households in energy poverty under Article 3(3)(d) of Regulation **(EU) 2018/1999**, Member States shall establish and publish a set of criteria, which may include low income, a high proportion of energy expenditure from disposable income, and low energy efficiency.

Art. 3(3)(d): With regard to integrated national energy and climate plans, Member States shall:

- assess the number of households in energy poverty taking into account the necessary domestic energy services needed to guarantee basic standards of living in the relevant national context, existing social policy and other relevant policies, as well as indicative Commission guidance on relevant indicators for energy poverty
- in the event that a Member State finds, pursuant to point (d) of the first subparagraph, that it has a significant number of households in energy poverty, on the basis of its assessment of verifiable data, it shall include in its plan a national indicative objective to reduce energy poverty. The Member States concerned shall outline in their integrated national energy and climate plans, the policies and measures, which address energy poverty, if any, including social policy measures and other relevant national programmes

A common EU definition of "energy poverty" would contribute to harmonizing the procedures of individual Member States in addressing the issue.

Ambitious and unrealistic EU plans

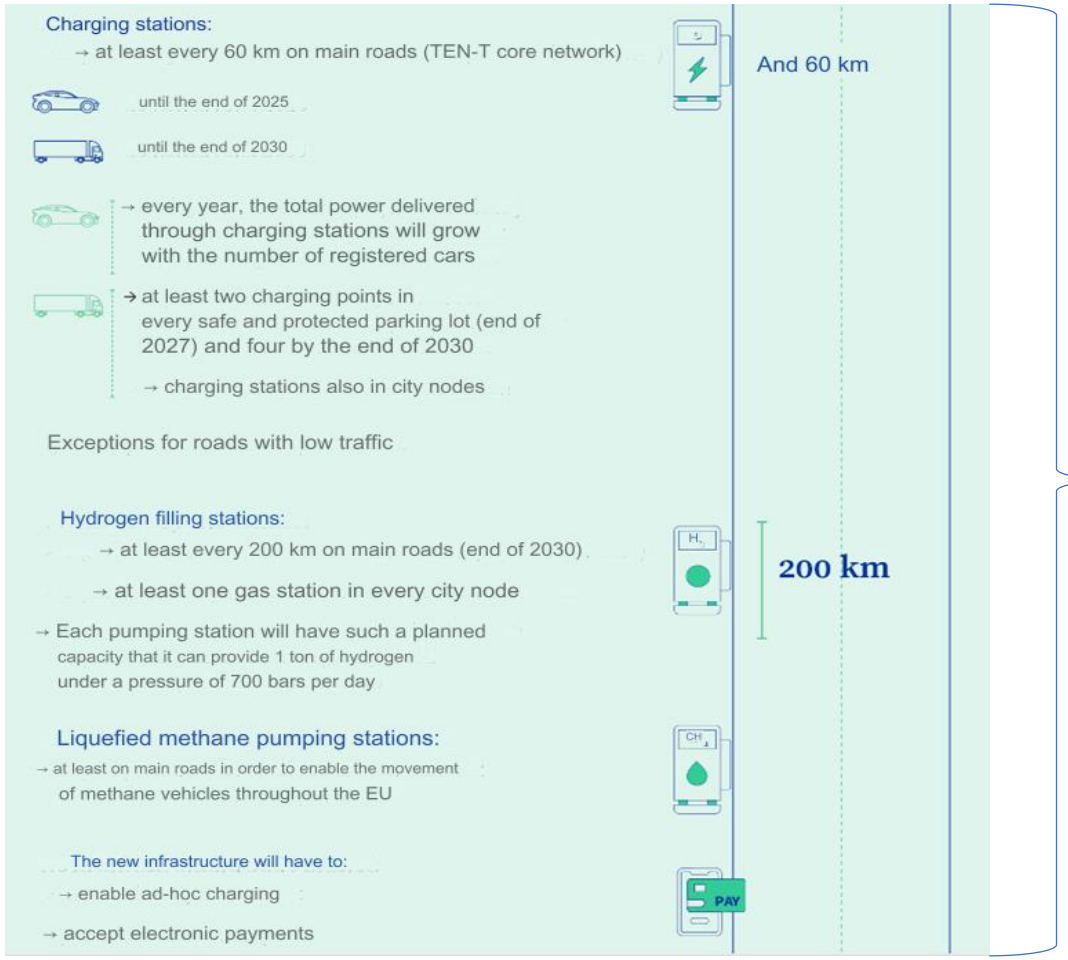


- According to estimates, it is necessary to invest **584 billion euros annually into the grid by 2030** to achieve green goals. Most of the money should come from private sources or **network fees in electricity prices** (roughly 40% of distribution networks in Europe are over 40 years old).

Task of regulators: highlight unrealistic EU goals that will negatively impact industrial competitiveness and exacerbate energy poverty!!!

Electromobility and hydrogen

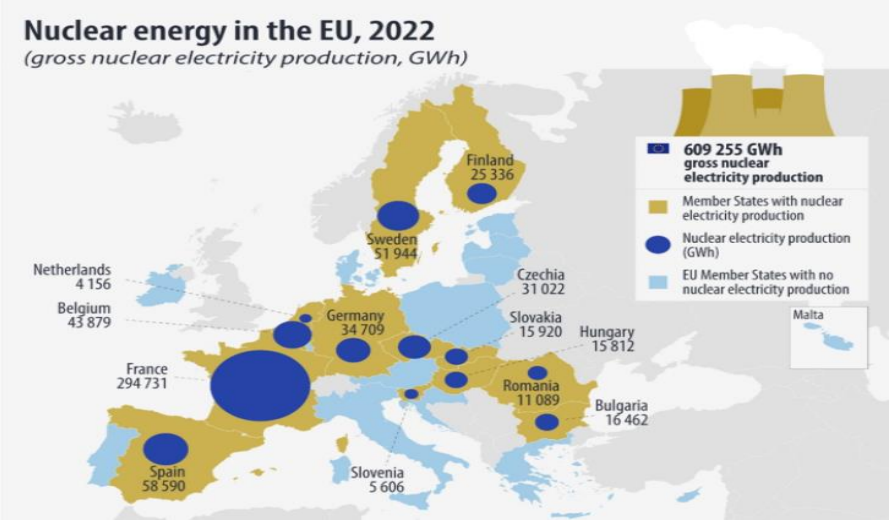
- **Regulation on Alternative Fuels Infrastructure (AFIR)** – binding and ambitious goals:



- The regulation and the goals defined in it are not achievable within the declared deadlines!!!
- They will have a significantly negative impact on electricity prices for all end-users.
- Even now, there is a cessation of massive support for electromobility (Germany has stopped subsidizing electric cars).
- The EU conceptually does not address the issue of battery disposal and its impact.

Nuclear Routes to Transition

- In March 2023, the European Commission (EC) proposed electricity market reforms under the Net-Zero Industry Act to **expand clean technology generation in the EU as part of the clean energy transition**. Under 'advanced technologies', small modular reactors (SMRs) were mentioned as one of the technologies that could make a significant contribution to decarbonisation.
- In October 2023, the EC agreed to include **existing nuclear power plants in the electricity market reforms**. MS can apply Contracts for Difference (CfDs) for investments aimed at extending the operational lifetime of existing plants



- nuclear power, with 413 gigawatts (GW) of capacity in 32 countries, contributes to both goals by saving 1.5 gigatons (Gt) of global emissions and 180 billion cubic meters (bcm) of global gas demand annually
- recognising the potential contribution of small modular reactors in helping European countries achieve their green energy and climate goals, the EC last month officially launched the European Industrial Alliance for Small Modular Reactors

Nuclear energy in Slovakia

- The 11 EU nuclear alliance countries (Bulgaria, Croatia, Czech Republic, Finland, Hungary, Poland, Romania, Slovakia, Slovenia, Sweden and France) agreed that current EU policies **do not sufficiently take into account the contribution of nuclear and other "non-fossil" energy sources to the bloc's goal of halving emissions by 2030 and achieving climate neutrality by mid-century.**

- Slovakia´s five nuclear units, three at Mochovce and two at Jaslovské Bohunice, generated **18 344 GWh** and supplied nearly **16 967 GWh** to the grid in 2023.

- If the nominal output of Units 3 and 4 of Mochovce is reached, there is a **potential to achieve a share of nuclear generation of up to 70-75% and they will continue to play a key role in ensuring Slovakia's energy self-sufficiency.**

- In 2023, Slovenské elektrárne (country´s major electricity producer) and its partners were successful in an international competition under the Phoenix project and will receive a **grant to fund a feasibility study for small modular reactors at 5 sites.**

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THANK YOU
FOR YOUR ATTENTION!

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