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THE ROLE OF RENEWABLE ENERGY RESOURCES IN THE EUROPEAN UNION AND LATVIA

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Topicality of the study

- The transition from fossil fuels to renewable energy will be crucial to avoid catastrophic climate change.
- Renewable energy sources (RES) are an essential part of the overall strategy for sustainable development.

Aim of the study

- to evaluate the role of RES and the planned use of renewable energy sources in European Union and Latvia.

Source: http://autosandelectro.blogspot.com/2016/10/aim-of-autos-electro-karachiites.html

The role of Renewable Energy Sources (RES) - positive effects

- Global health will improve as coal use and associated pollution decreases.
- The construction of renewable energy projects will create millions of jobs worldwide.
- RES help reduce dependence on energy imports, thus ensuring a sustainable energy supply and climate protection.
- In addition, renewable energy sources can help to improve the competitiveness of sectors in the long term and have a positive impact on regional development and employment.
- Renewable energy will provide a more diverse, balanced and stable energy mix.

RES target of the European Union

- Directive 2018/2001 sets a common binding target for the Member States of the European Union to achieve a 32% share of renewable energy in the European Union’s final energy consumption by 2030.

RES targets of Latvia

- Latvia has planned its contribution to the achievement of the common goal of the European Union by 2030

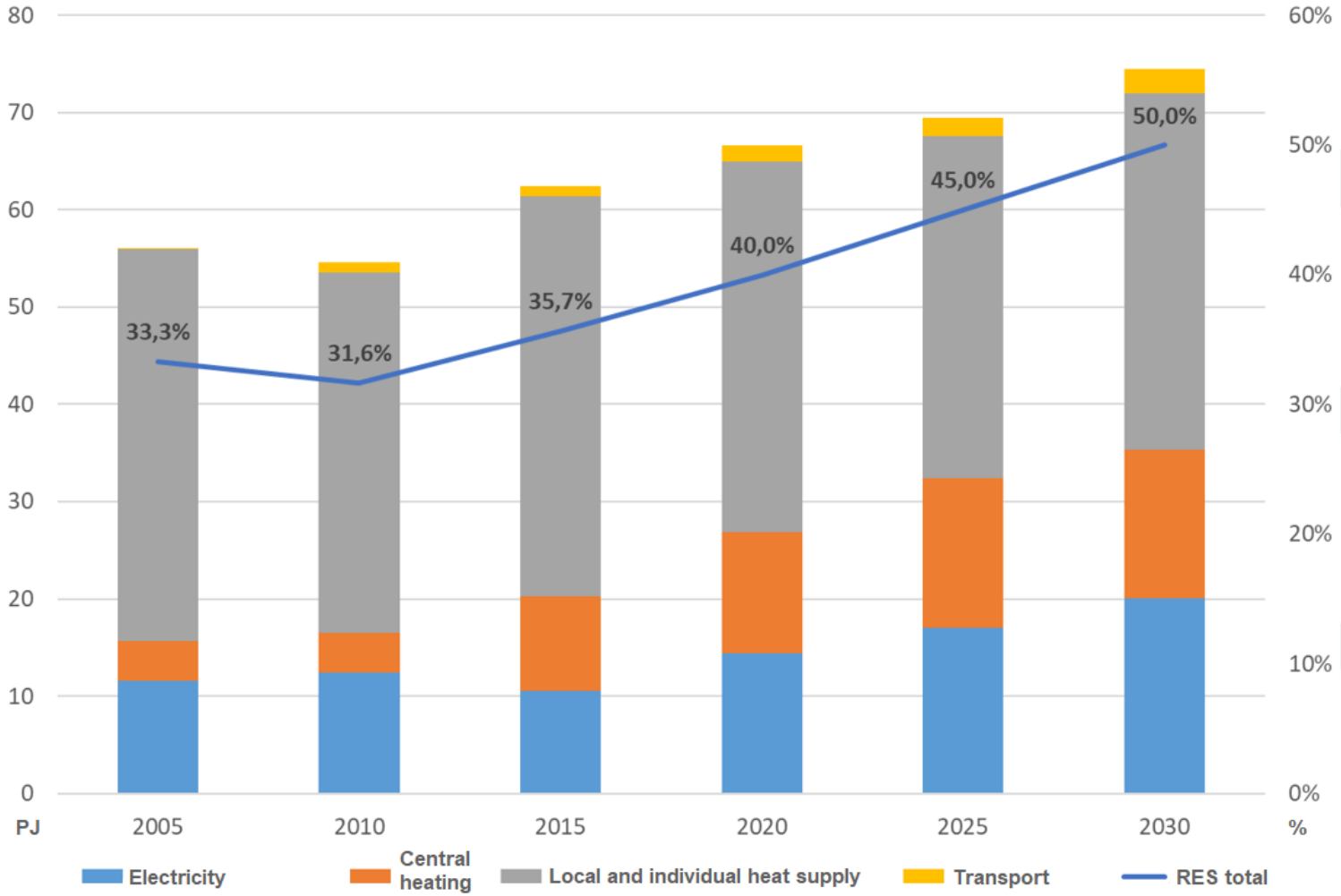
RES targets	Actual value	Target value				
	2017	2020	2022	2025	2027	2030
RES share in final energy consumption (%)	39,01	40	41,8	44,3	46,5	50
Indicative share of RES in electricity generation (%)	54,36	59,8				>60
Indicative share of RES in heat and cold energy production (%)	54,58	53,4	55,2	56,08	56,69	57,59
Share of RES in final energy consumption in transport (%)	2,5	10	-	-	-	7
Share of modern biofuels and biogas in final energy consumption in transport (%)	0	-	0,2	1,0	-	3,5

Source: (Par Latvijas Nacionālo enerģētikas un klimata plānu 2021.- 2030. gadam, 2020)

The forecasted share of RES in final energy consumption in Latvia

- In the next planning period from 2021 to 2030, Latvia plans to mainly support the use of wind energy, solar energy, biomass and biogas in order to achieve a 50% share of RES in final energy consumption by 2030.
- Analysing the forecast of Latvia's planned share of RES in final energy consumption, it can be concluded that in the next planning period, in order to achieve the set goal, the share of RES must be increased in all sectors:
  1. electricity
  2. central heating
  3. local and individual heat supply
  4. transport

The forecasted share of RES in final energy consumption of Latvia



Source: (Par Latvijas Nacionālo enerģētikas un klimata plānu 2021.- 2030. gadam, 2020)

The forecasted share of RES in final energy consumption in Latvia

- In the planned scenario, the share of RES for electricity generation in 2030 will increase to 71.5%. Such an increase is planned to be achieved through the use of small hydropower plants, biomass cogeneration plants, and mainly through the installation of wind generators with a total capacity of 1100 MW, as well as a small contribution from the construction of solar power plants.
- To reach the overall 50% target, the share of RES in central heating in 2030 should reach 58% from 44.9% in 2020. To achieve this, the use of solar collectors must be increased and biogas with biomass must be replaced in boiler houses.
- The share of RES in local and individual heat supply should reach 62.7% in 2030, compared to the expected value of 55.4% in 2020. This can be achieved by reducing the use of natural gas and reducing the heat consumption of the sector, as a result of the implementation of energy efficiency measures in buildings.
- In the transport sector, the use of RES is projected to quadruple from 2.5% in 2017 to 9.6% in 2030. This can be achieved mainly by increasing the use of electricity, biogas and biofuels in the transport sector and at the same time reducing the consumption of petrol and diesel fuel.

Conclusions and Proposals

1. The governments of the member states of the European Union need to accelerate the use of the tools and programs to increase the share of renewable energy in national energy balances, thus reducing greenhouse gas emissions per unit of energy.
2. The governments of the member states of the European Union need to provide more support to R&D institutions engaged in research and development of technological solutions of renewable energy to increase the amount of energy produced per 1 m^2.
3. The governments of the member states of the European Union need to use tools and implement programs that promote sustainable consumption and teach to give preference to low-carbon options.
4. The Latvian government must support the development of innovation and research that contributes to climate change mitigation and sustainable energy development.
5. The Latvian government must provide support for the implementation of the following activities by 2030: 1) for the acquisition of wood cogeneration, solar and wind use potential; 2) for the use of unused agricultural land for the production of biofuel.

Thank you for your attention!

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