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Policy of local fuel and energy resources development in the Republic of Belarus, including the use of renewable energy sources

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Legislation in the field of local fuel and energy resources development and use of renewable energy sources

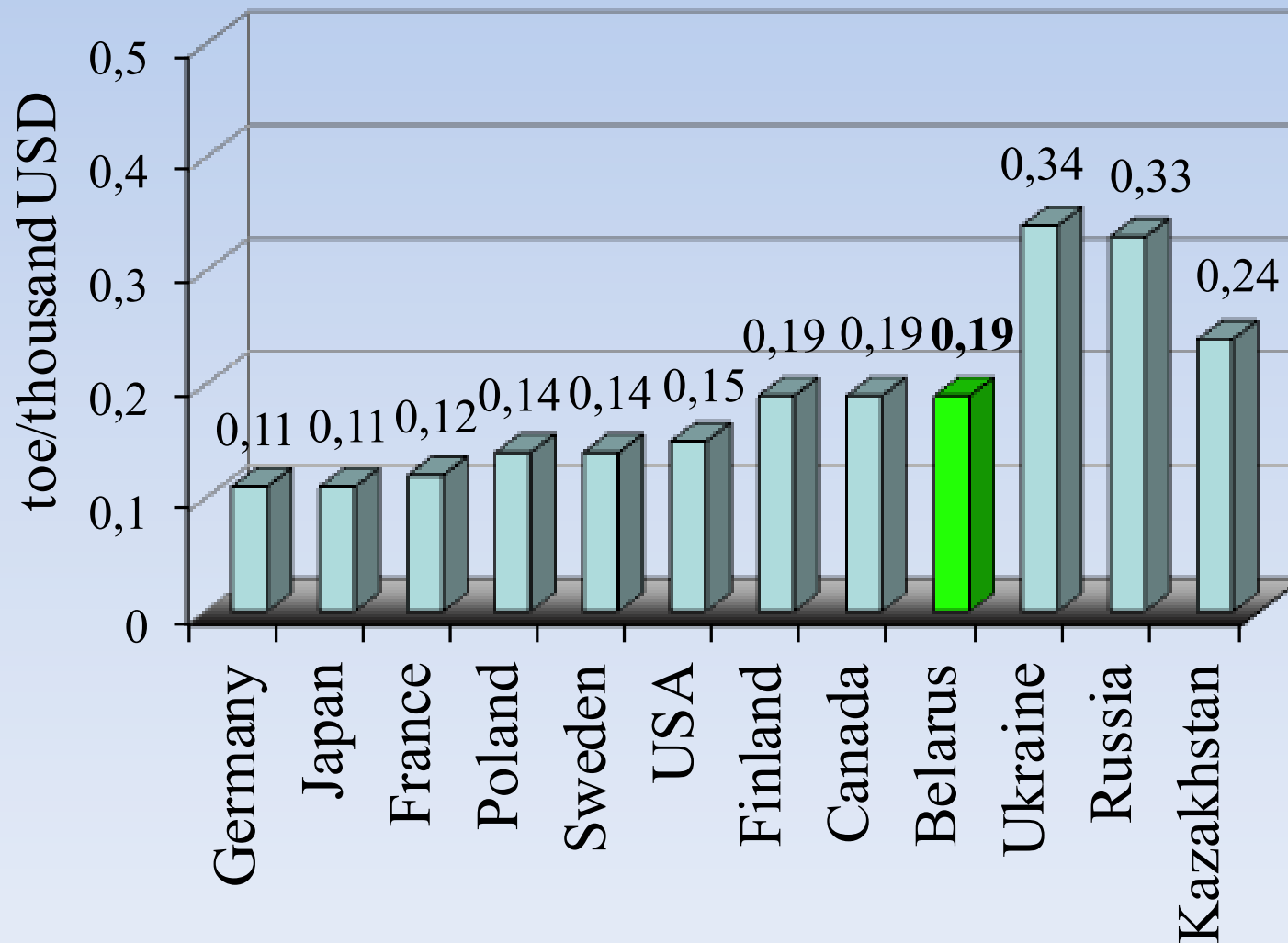
1. Law of the Republic of Belarus on Energy Saving of 8 January 2015 №239-3.
2. Law of the Republic of Belarus on Renewable Energy Sources of 27 December 2010 №204-3.
3. Directive of the President of the Republic of Belarus 'Saving and Thrift are the Main Factors of Economical Security of the State' of 14 June 2007 №3 (as amended by the Decree of the President of the Republic of Belarus of 26 January 2016 № 26).
4. Conception of Energy Security of the Republic of Belarus of 23 December 2015.
5. State Programme 'Energy Saving' for 2016-2020.
6. Decree of the President of the Republic of Belarus on Use of Renewable Energy Sources of 18 May 2015 №209.
7. Resolution of the Council of Ministers of the Republic of Belarus 'On the Establishment and Allocation of Quotas for the Creation of Facilities for the Use of Renewable Energy' of 6 August 2015 № 662.
8. Resolution of the Ministry of Economy of the Republic of Belarus 'About tariffs for electrical power produced from renewable energy sources on the territory of the Republic of Belarus by individual entrepreneurs and legal entities, who are not members of the State Electrical power Production Association "Belenergo", and provided to the power supply companies of the Association' of 7 August 2015 № 45.

Results and targets in the field of energy saving

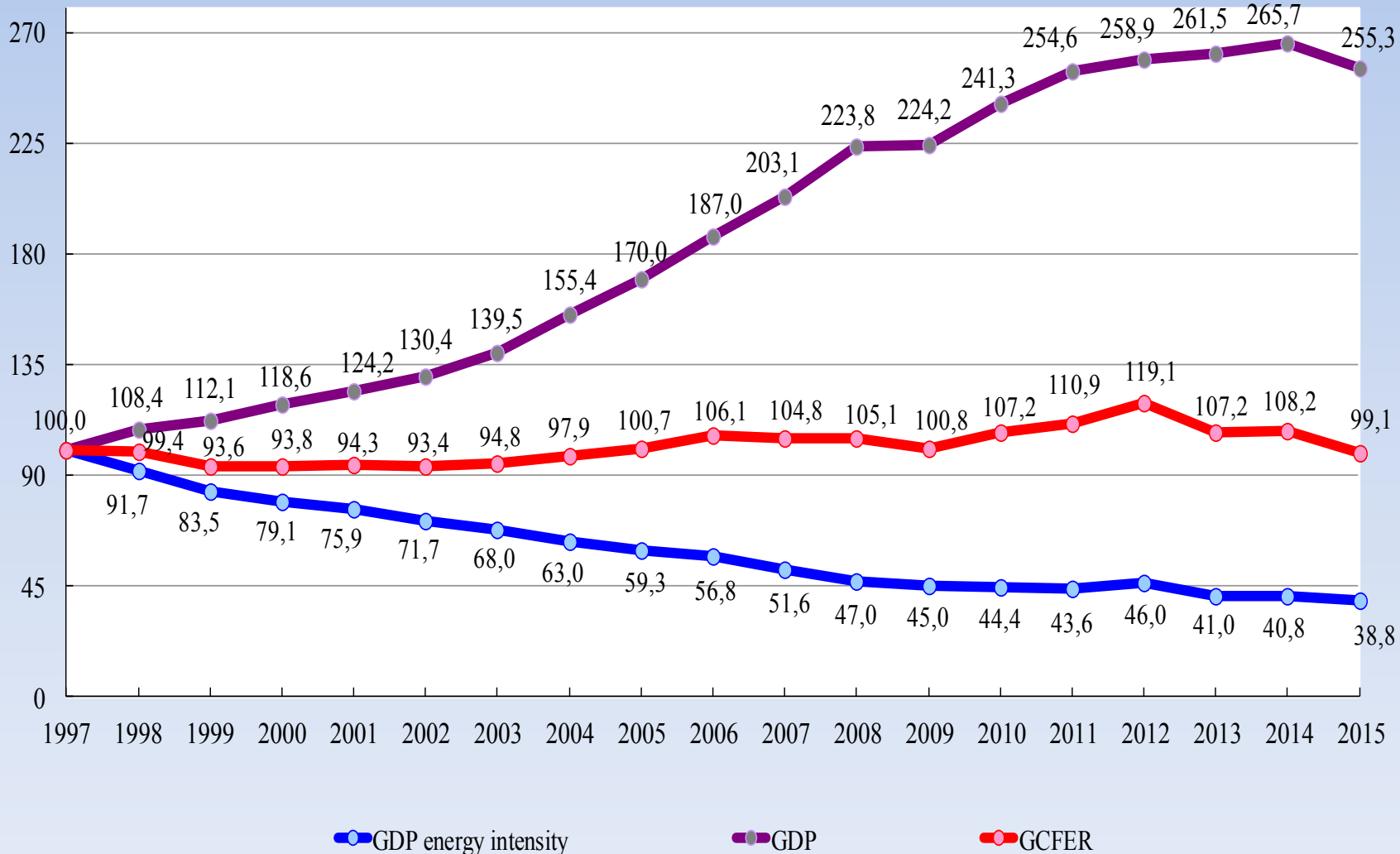
	RESULTS of 2011-2015		TARGETS for 2016-2020
	Target	Fact	
Reduce the GDP energy intensity, %	11,9	12,7	at least by 2% to 2015 year level,
including in 2015	0,5-1	4,8	including for 2016 - 0,4
Share of domestic energy resources in boiler and furnace fuels, %	28,0-30,0	29,5	16, including the share of RES – 6,
			including for 2016 14,3 and 5,8 accordingly
Fuel and energy resources saving, ths. tons of fuel equivalent,	7100 - 8850	7788	at least 5000
including in 2015	1455-2000	1500,6	including for 2016 at least 1000

World GDP energy intensity in 2013

(in 2005 year prices by purchasing-power parity) according to IEA
(Key World Energy Statistics 2015)

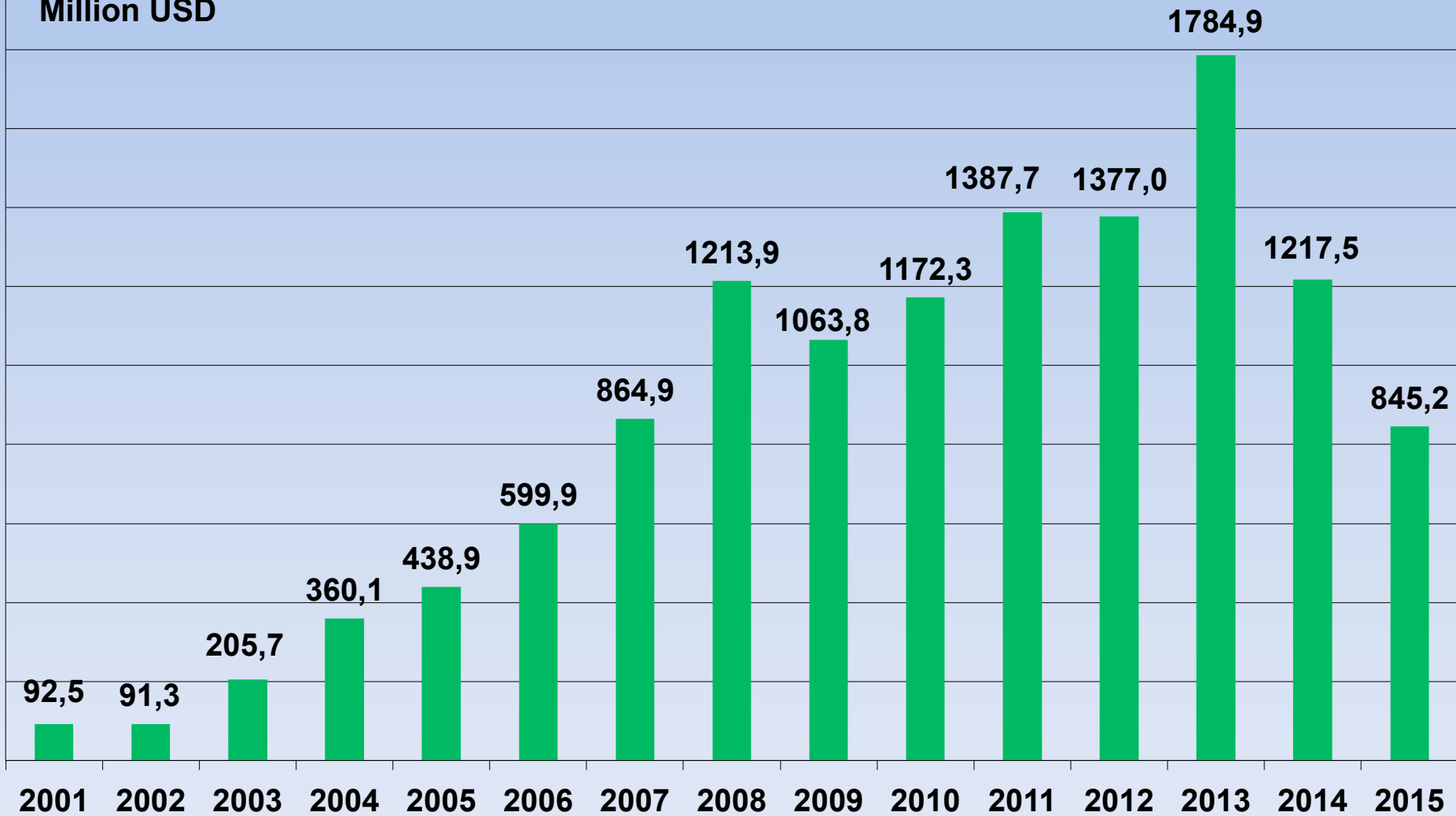


Dynamics of GDP, gross consumption of fuel and energy resources (GCFER) and GDP energy intensity to 1997 level (%)



Dynamics of investments into energy saving activities in 2001-2015

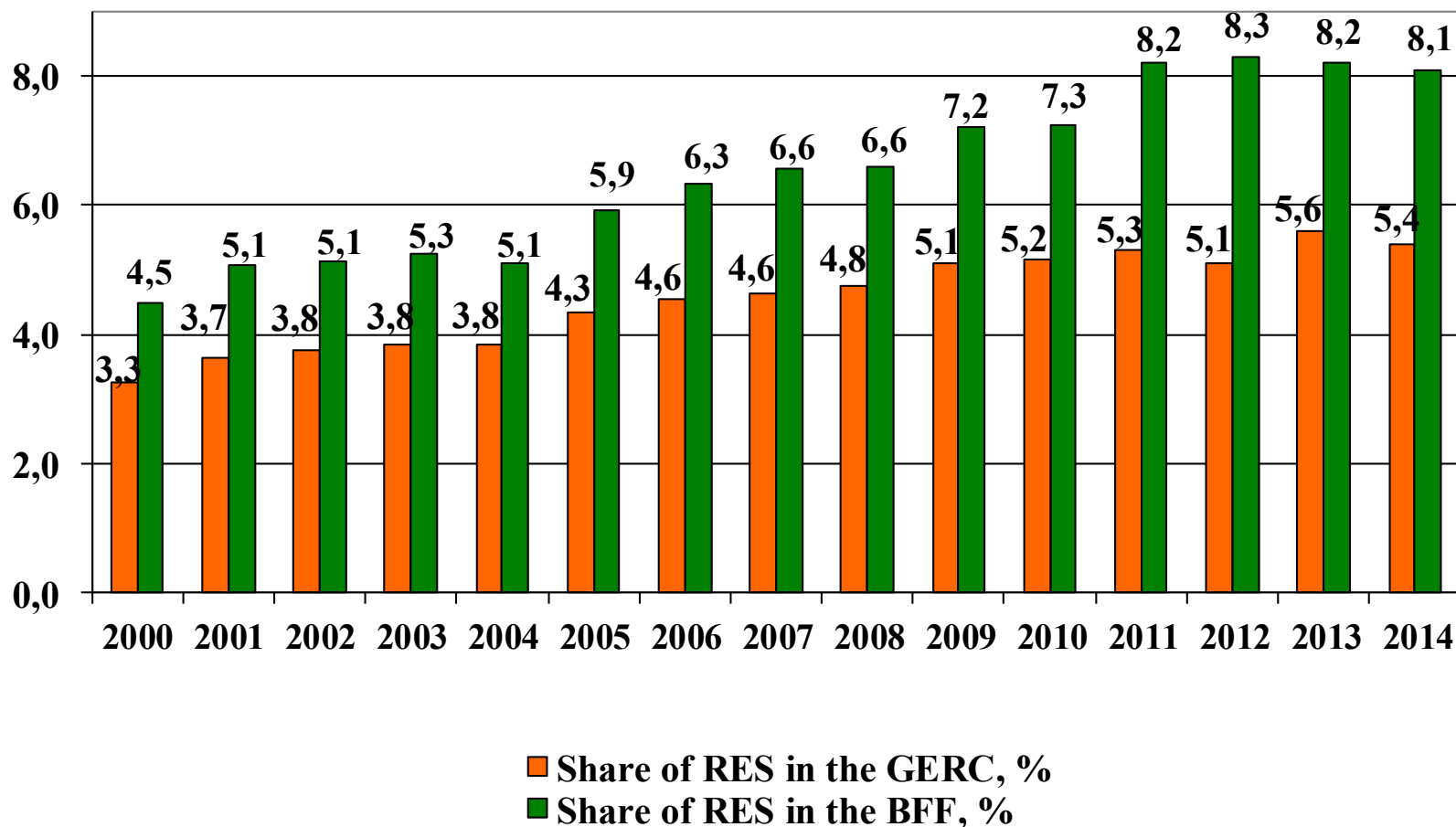
Million USD



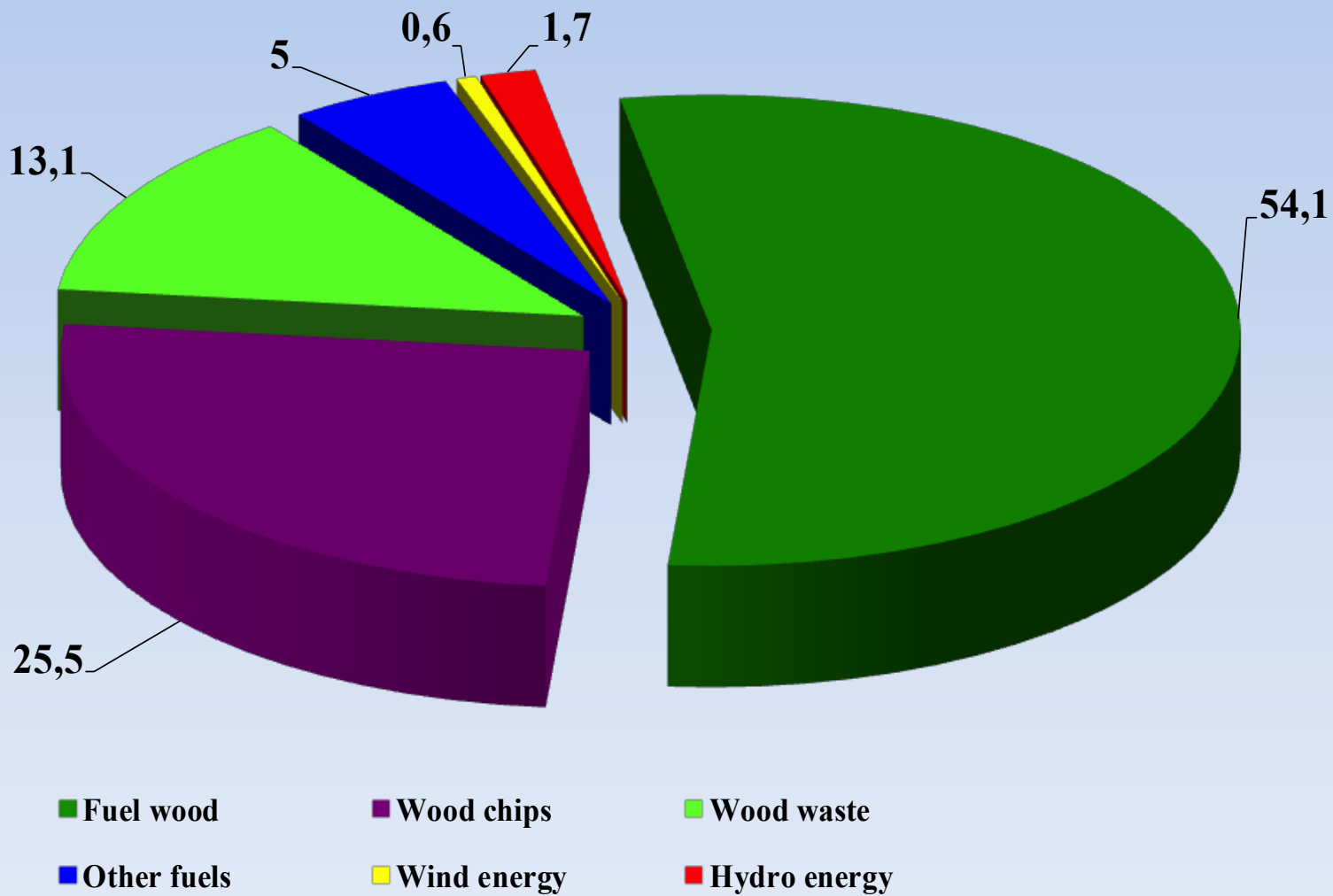
Renewable energy sources installations (RES) in the Republic of Belarus as of 01.01.2016

Type of RES installation	Number of installations in the Republic of Belarus/ installed capacity MW (as of 01.01.2016)
Energy sources on local fuels, including wood fuel based mini-CHP	3265 pcs. / more than 6000 MW heat 22 pcs./ 129 MW electricity/ 345 MW heat
Biogas installations	16/ 22,4 MW
Hydropower stations	50/ 35,1 MW
Wind power stations	56 / 43,2 MW
Heat pumps	118 / 10 MW
Photovoltaic power plants	29/ 13 MW
Solar water heaters	287/ 3,8 MW

Shares of renewable energy sources (RES) consumption in the gross energy resources consumption (GERC) and in the energy balance (boiler and furnace fuels (BFF)) for the production of heat and electricity in 2000-2014, %



The balance of renewable energy sources in the Republic of Belarus in 2015, %



Share of biomass used in gross fuel and energy resources consumption / total electricity generation, % (as of 01.01.2014)

Country	In gross fuel and energy resources consumption, %	In the total electricity generation, %
Republic of Belarus	5,5 %*	less than 0,3 %**
Germany	3,4 %	1,8 %
Austria	14,7 %	5,5 %
Denmark	13,9 %	8,7 %
Sweden	18,7 %	6,3 %
Finland	24 %	16 %
France	4,2 %	0,3 %
Czech Republic	5,1 %	1,9 %

* 2 175 ths. tons of fuel equivalent

**estimated

Data source: European Commission. EU energy in figures. Statistical pocketbook 2015

Solid Biomass Barometer - Euroserv'er – January 2015

European and Russian experience of integrating the RES into the grid

- Since 2013 in the Czech Republic the support for new RES installations has been ended, apart from the already implemented projects, the construction of small hydropower plants and solid waste management facilities.
- Currently in Germany the network companies have the right not to pay for part of the energy from new installations (up to 5% of annual production), produced at the peak load of the network. It is planned to increase legislatively the allowable percentage of unpaid energy in the future.
- According to the Resolution of the Government of the Russian Federation of 23.01.2015 № 47 the integration of RES generating object into the electric power regional development scheme is carried out with respect to the principle of prices (tariffs) minimization of electric power (capacity) for consumers in the retail market of electric power (capacity) on a competitive basis and the maximum localization.

Decree of the President of the Republic of Belarus on Use of Renewable Energy Sources of 18 May 2015 №209.

Decree № 209 creates favorable conditions for the RES development in the Republic of Belarus in terms of:

- providing the state support by quoting the construction of RES installations on a competitive basis
- providing guarantees to the investor in the immutability of a multiplying coefficients to the tariff for the purchase of electricity from RES by energy supplying organizations for the first 10 years of energy installations operation
- differentiation of tariff coefficients rate for the purchase of electricity from RES depending on the actual useful life of the equipment, electrical capacity, the type of RES
- there is no need to obtain quotas in the case of electricity generation for the energy supply of the own economic activities with the incentive coefficients for the sale of this electricity

Resolution of the Council of Ministers of the Republic of Belarus 'On the Establishment and Allocation of Quotas for the Creation of Facilities for the Use of Renewable Energy' of 6 August 2015 №662

In the end of 2015 quotas of 215 MW for the construction of RES installations in 2016-2018 were adopted:

- 32 MW with the use of biogas energy
- 50 MW with the use of wind energy
- 15 MW with the use of solar energy
- 82 MW with the use of water energy
- 36 MW with the use of energy from wood fuel and other biomass types

Out of these 215 MW quotas in the end of 2015 only 97,5 MW were distributed among the investors.

Unallocated are 117,5 MW, including:

2,9 MW with the use of wind energy;

1,5 MW with the use of solar energy;

80,1 MW with the use of water energy;

32,9 MW with the use of energy from wood fuel and other biomass types.

**Thank you for your
attention!**