



SUSTAINABLE ENERGY DEVELOPMENT AGENCY

Project BGENERGY-1.001-0001 "Feasibility study of the use of hydroenergy potential of existing water supply systems and increasing the potential of existing small hydroelectric power plants in water supply system"

Funded by: Renewable Energy, Energy Efficiency and Energy Security Program under the Financial Mechanism of the European Economic Area 2014-2021

General review of the energy sector in Bulgaria

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Iceland
Liechtenstein
Norway grants



Activity 4: Webinar/Web study visit, April 13, 2021

Bulgaria in numbers

Founded:	681
Current territory:	110 994 square kilometers (Europe's 16th-largest country)
Population:	6 975 761 (2019, NSI)
GDP:	61 239,5 M€ (2019, NSI)
Final Energy Consumption:	9 699 ktoe (2019, Eurostat)
Primary Energy Consumption:	18 219 ktoe (2019, Eurostat)
including PEC of RES	2 471,6 ktoe (2019, Eurostat)
The largest (per capita) producer and exporter of electricity on the Balkan Peninsula.	
Kozloduy Nuclear Power Plant:	16 552 GWh (2019, Eurostat) (37 % of Bulgaria's electricity)

The largest thermal power plants in Southeastern Europe are located in the Maritsa East complex.

Total production of TPPs:	21 570 GWh (2019, Eurostat)
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RES electricity

Total production :	7 962 GWh (2019, Eurostat)
including hydro electricity :	3 382 GWh (2019, Eurostat)

The Belmeken-Sestrimo-Chaira cascade is the most powerful hydropower facility:

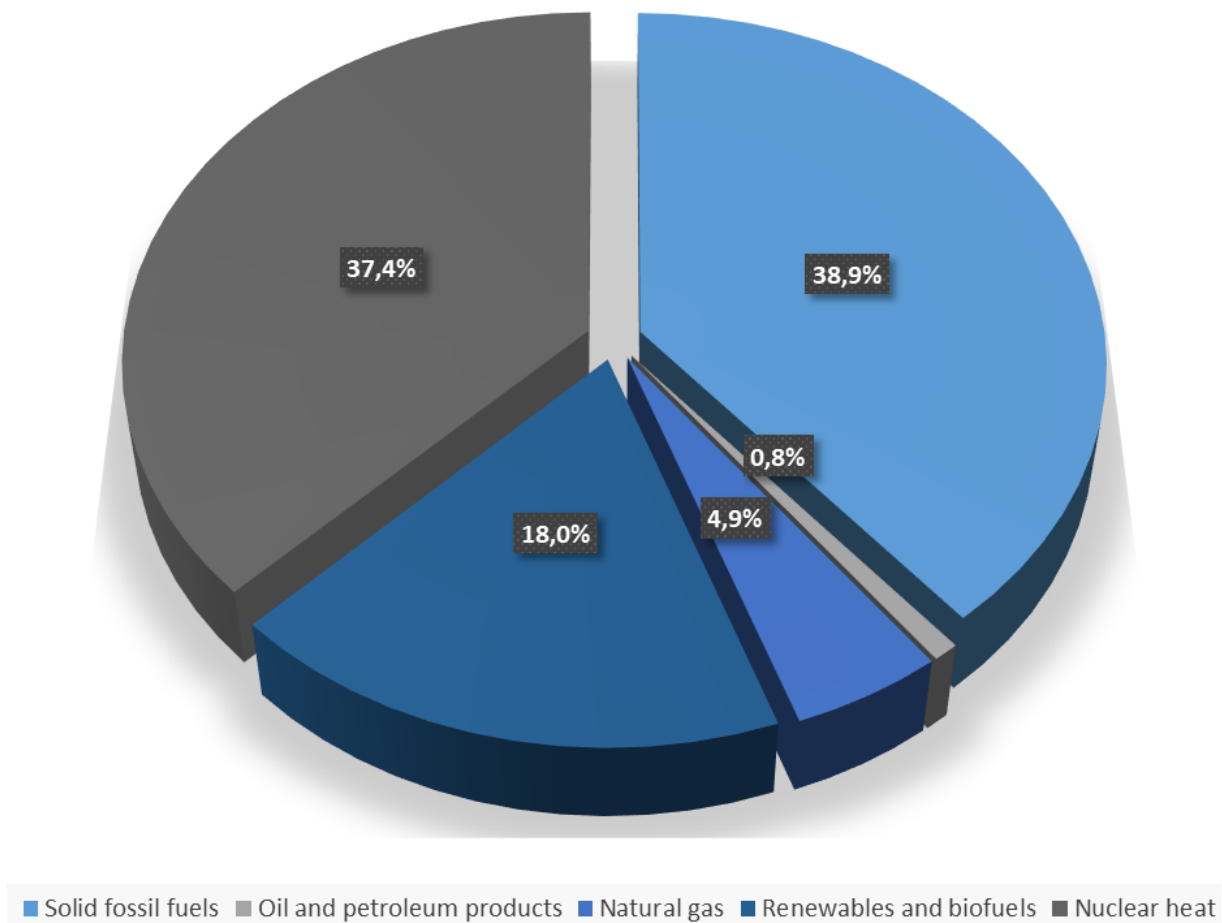
1 479 MW



6 planning regions
28 district regions
265 municipalities

Gross electricity production in 2019 by energy sources

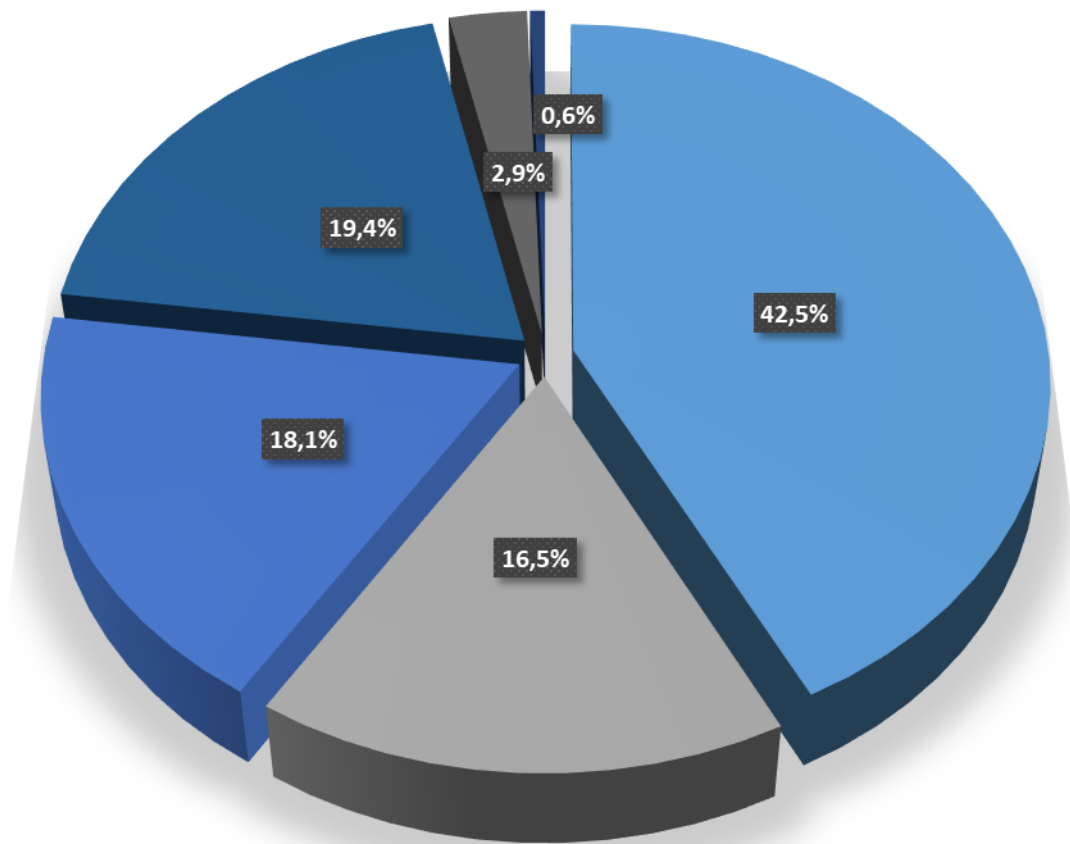
44 263,17 GWh



Source: Eurostat

Gross electricity production in 2019 from RES

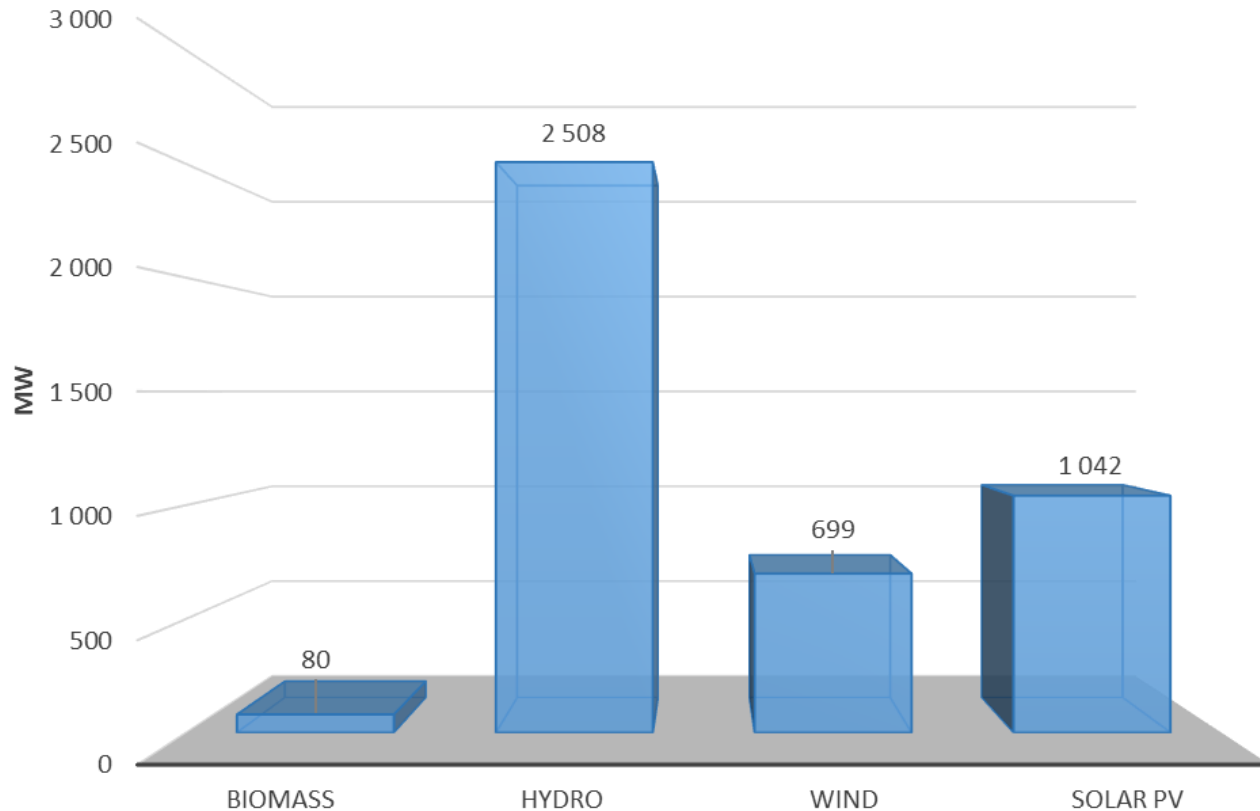
7 961,65 GWh



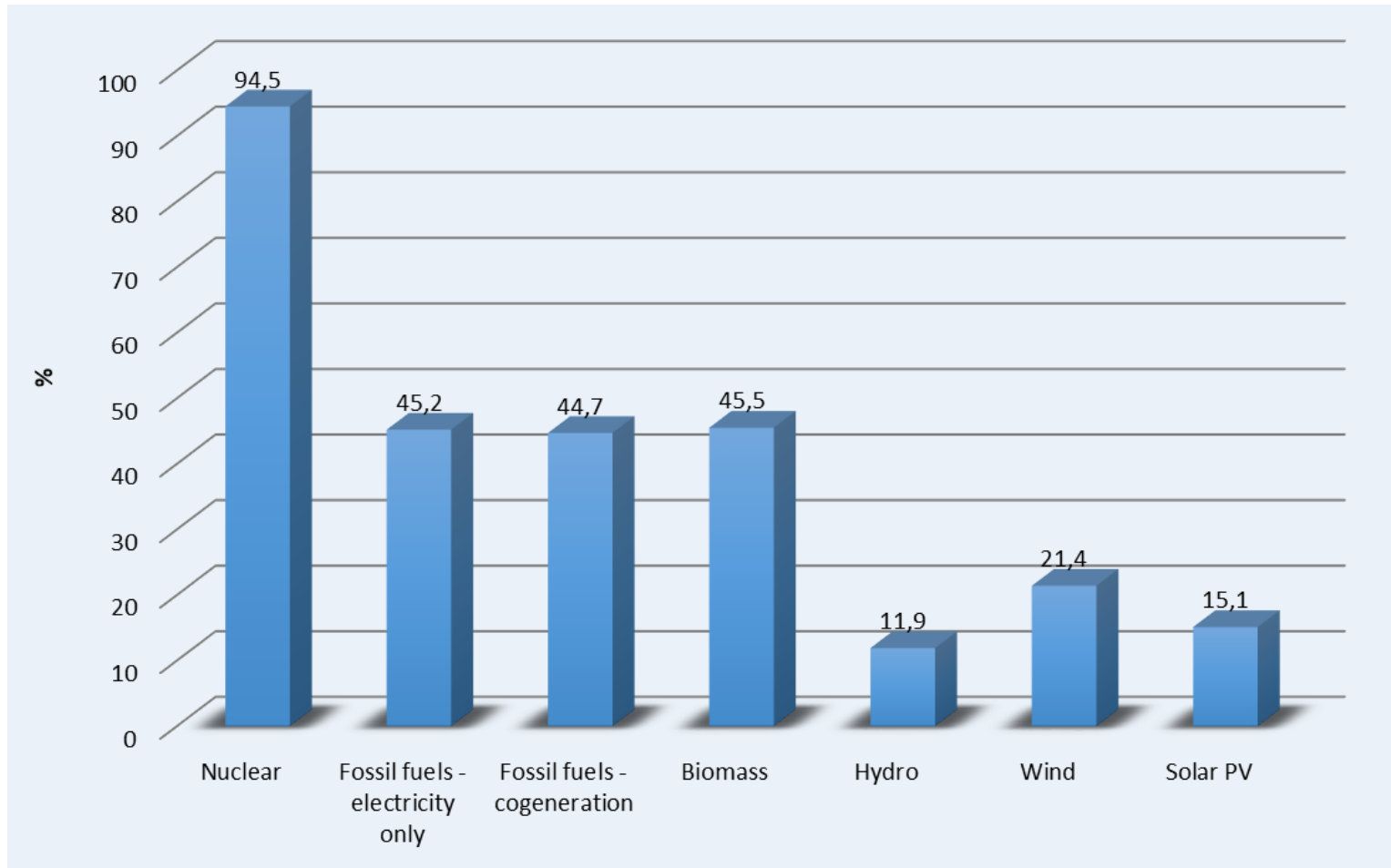
Hydro Wind Solar photovoltaic Primary solid biofuels Biogases Renewable municipal waste

Source: Eurostat

Net installed capacity of RES power plants in 2020 (NECP)

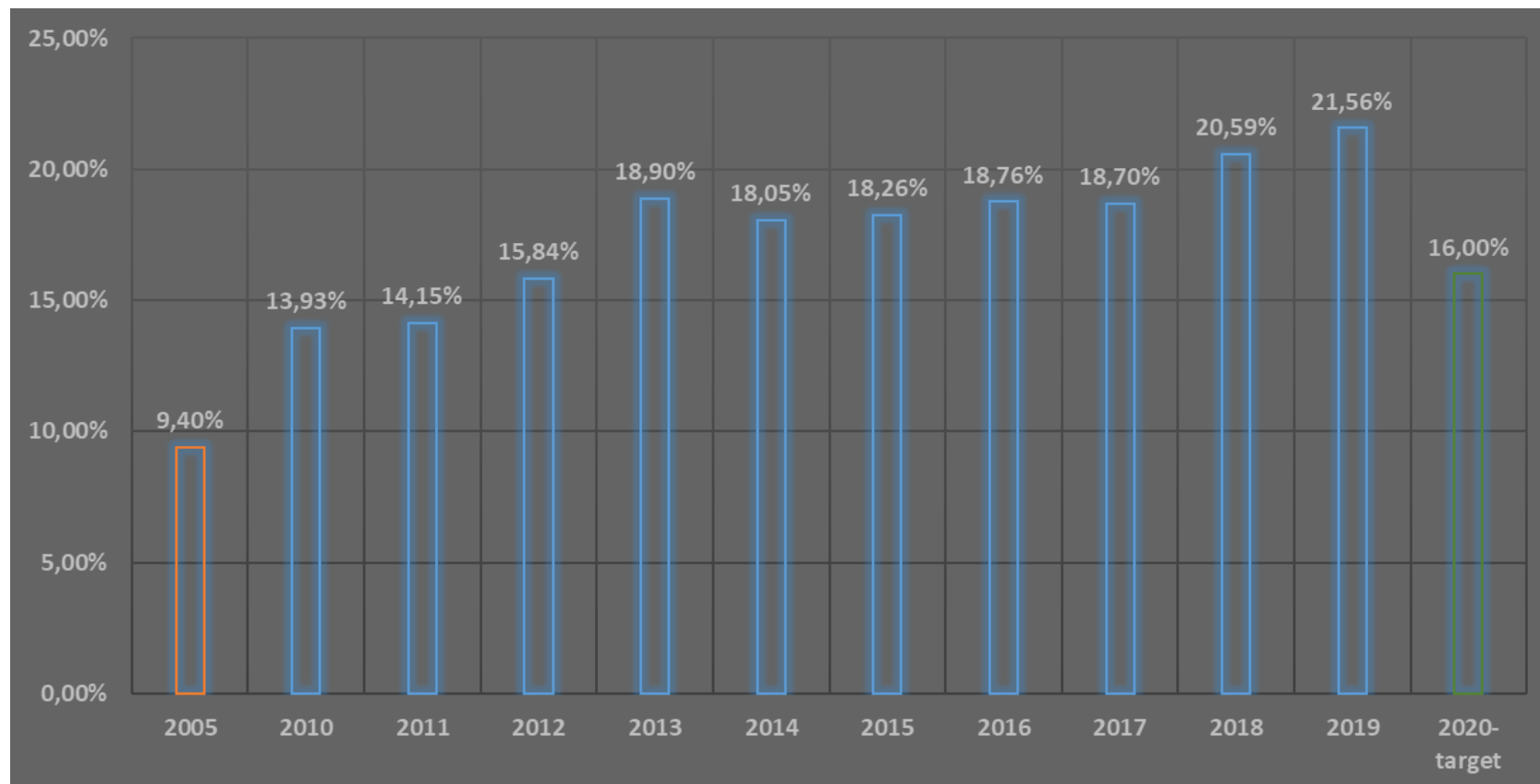


Annual capacity factor of power plants in 2019



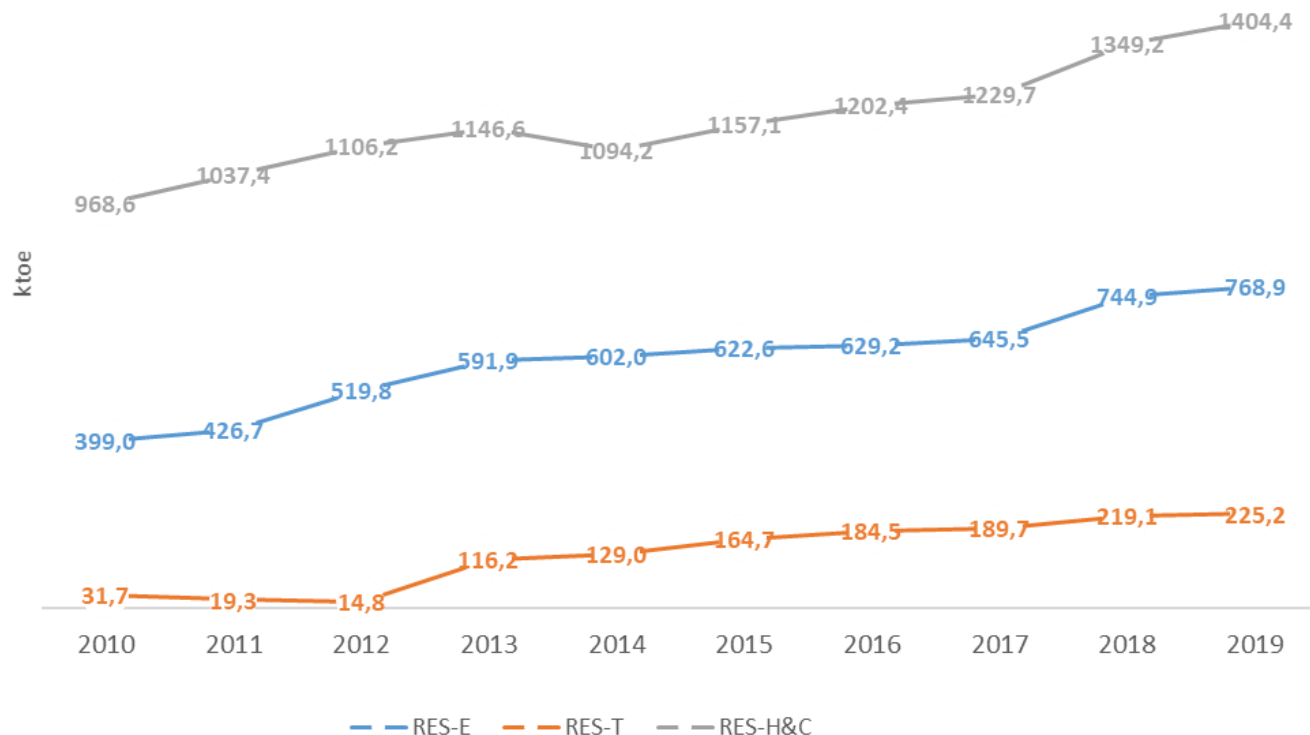
Source: [Electricity System Operator](#)

National Renewable Energy Action Plan (NREAP) – RES share in %

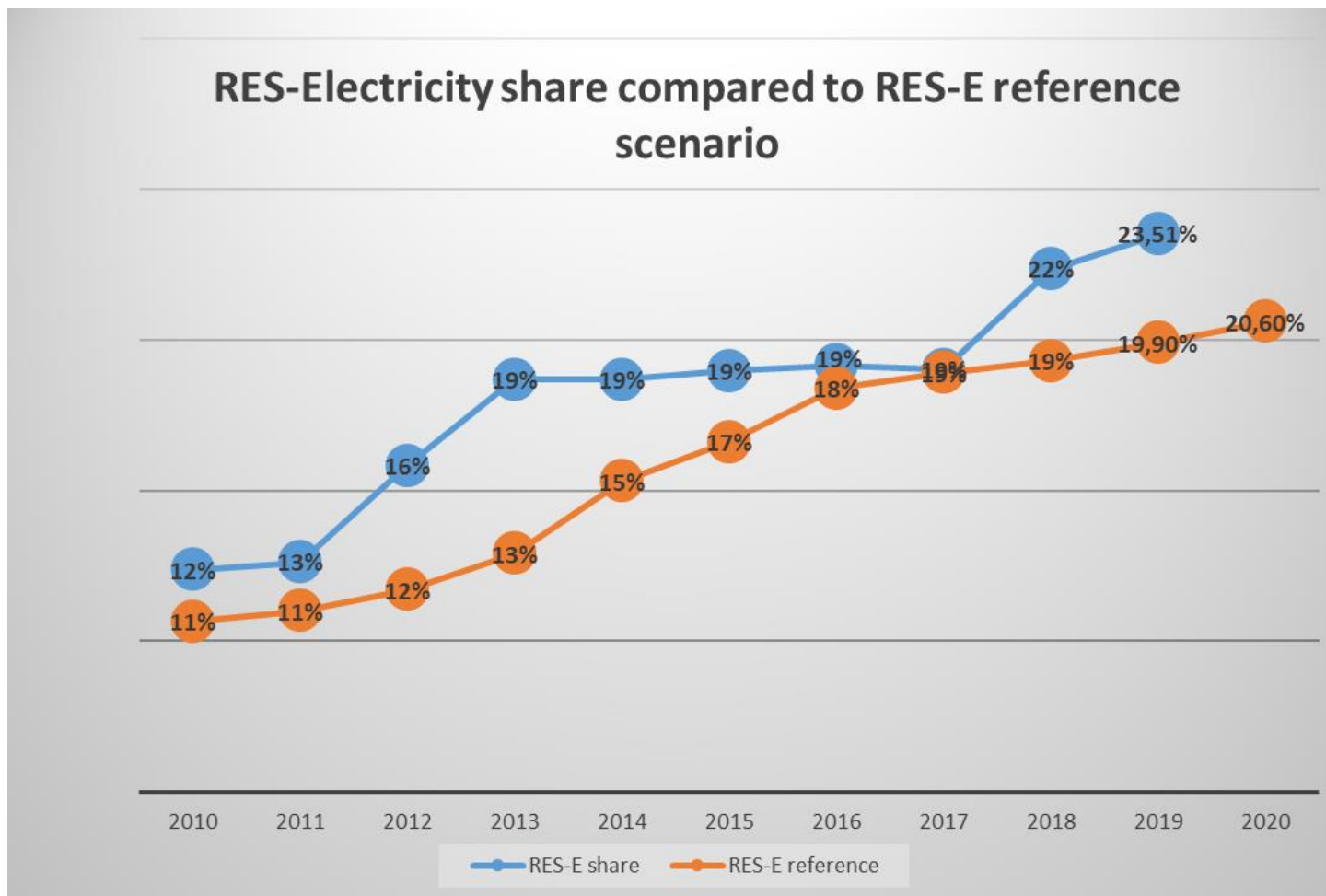


The shares are from Gross Final Energy Consumption as defined in the Directive 2009/28/EC

Consumption of energy from renewable sources in heating and cooling, electricity and transport 2010 – 2019 in ktoe

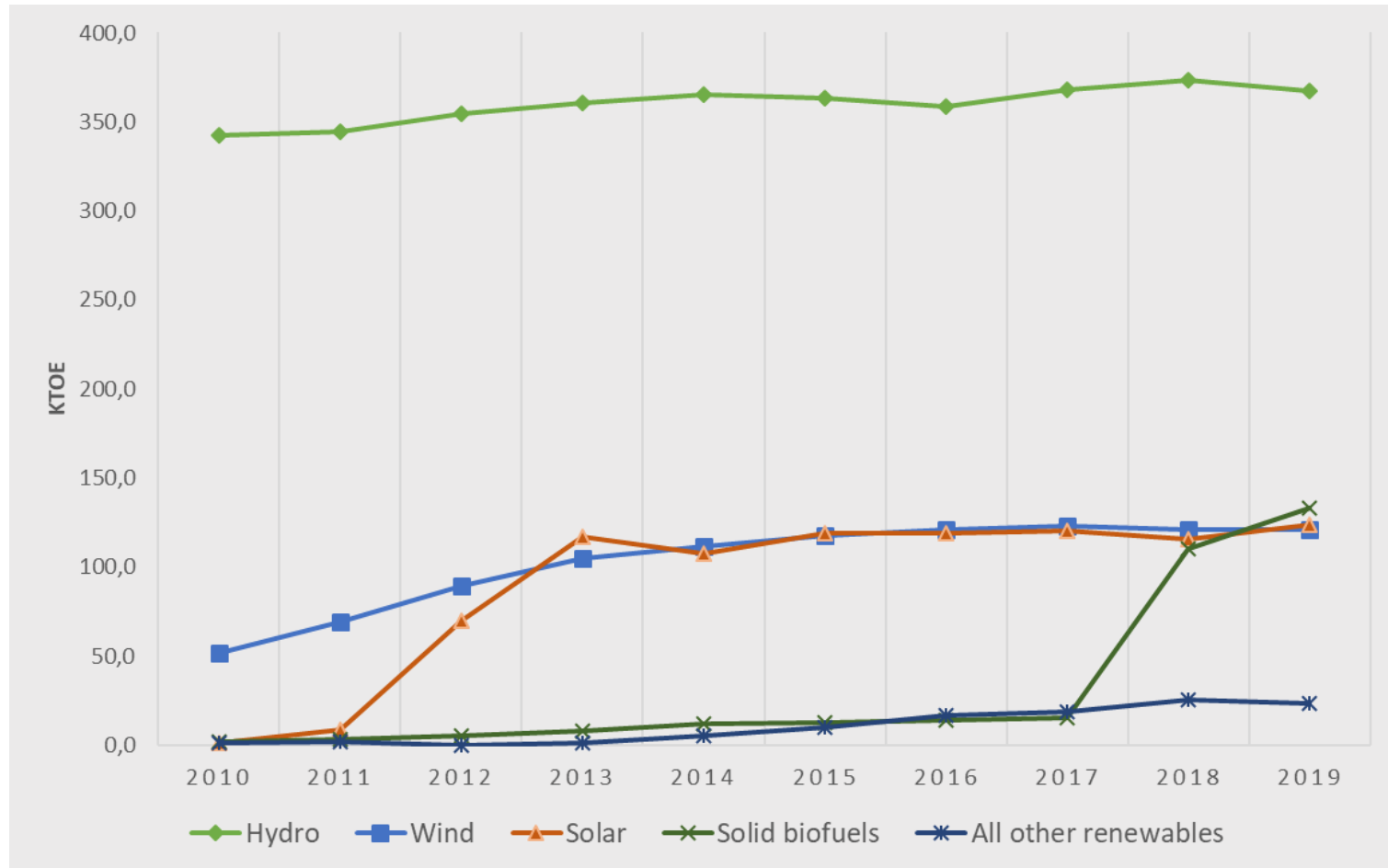


RES-Electricity share in gross final electricity consumption, %



Hydro is normalized and excluding pumping. Wind is normalized. Solar includes solar photovoltaics. All other renewables includes electricity generation from gaseous and liquid biofuels, renewable municipal waste.

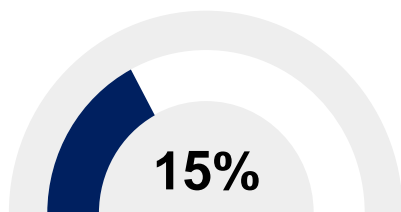
Contribution of each technology for RES-Electricity generation 2010 - 2019



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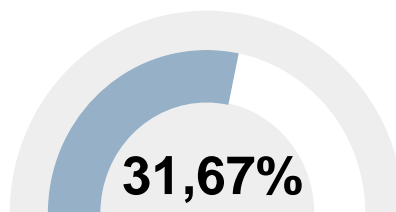
National targets of Bulgaria to 2030 (NECP)

Interconnections



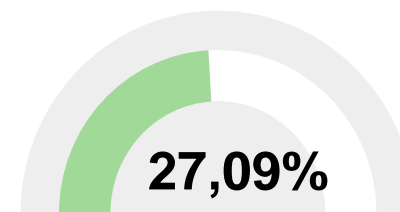
Electricity system
interconnection target

EE



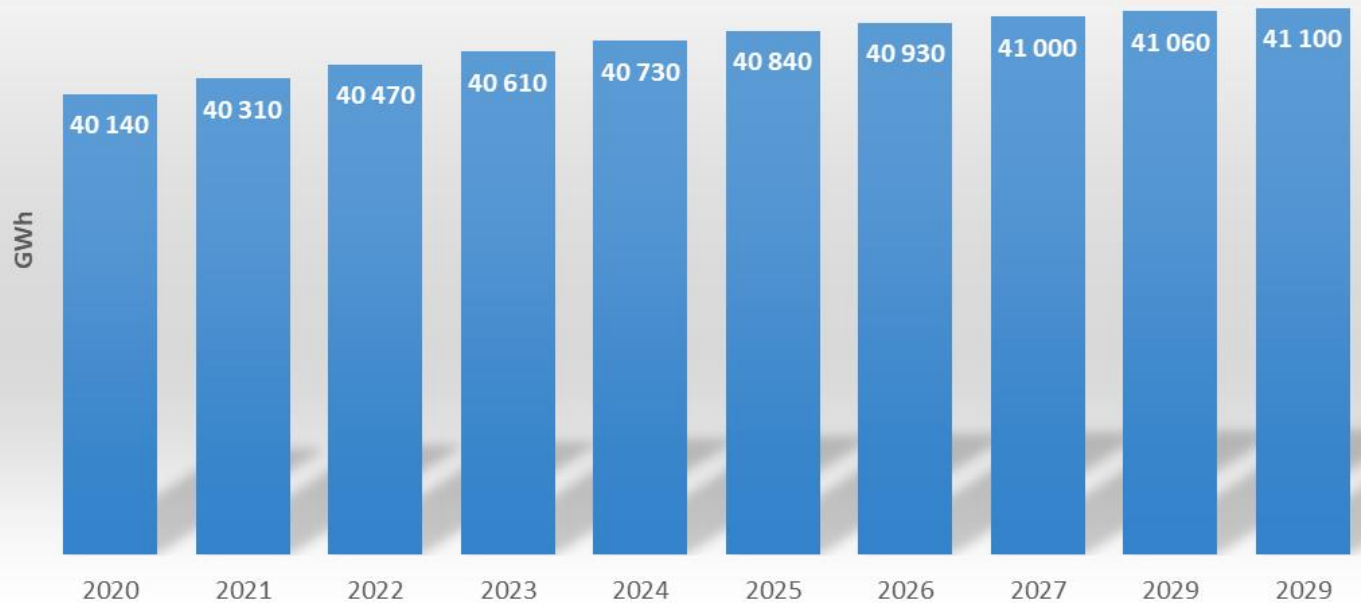
Decrease by 31,67%
in final energy
consumption,
compared to the
reference scenario
PRIMES 2007

RES

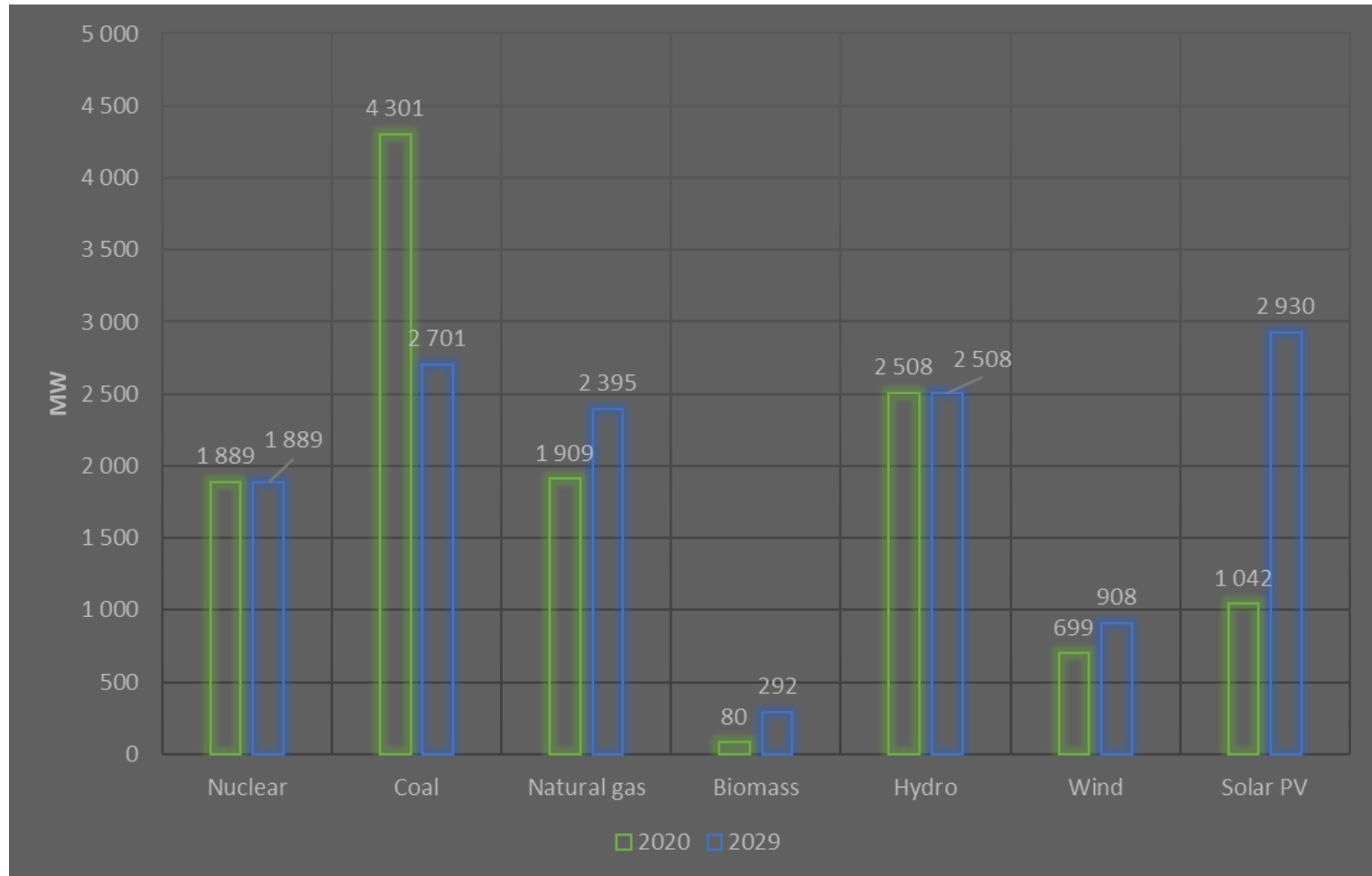


National target for the
share of renewable
energy in gross final
energy consumption

Gross electricity consumption forecast to 2029 (NECP)



Net installed capacity of power plants - forecast to 2029 (NECP)



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Thank you!



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