



AYEP

SUSTAINABLE ENERGY DEVELOPMENT AGENCY BULGARIA



SEDA

Energy efficiency in Bulgaria

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Bulgaria in numbers

Founded:	681
Current territory:	110 994 square kilometers (Europe's 16th-largest country)
Population:	7 101 859 (2016, NSI)
GDP:	48 129 M€ (2016, NSI)
Final Energy Consumption:	9 367 ktoe (2015, NSI)
Primary Energy Consumption: including PEC of RES	17 931 ktoe (2015, NSI) 1 992 ktoe (2015, NSI)

The largest (per capita) producer and exporter of electricity on the Balkan Peninsula.

Kozloduy Nuclear Power Plant:	1 322 ktoe(2015,NSI) (32% of Bulgaria's electricity)
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The largest thermal power plants in Southeastern Europe are located in the Maritsa East complex.

Total production of TPPs:	2 137 ktoe (2015, NSI)
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RES electricity

Total production :	731 ktoe (2015, NSI)
including hydro electricity :	487 ktoe (2015, NSI)
The Belmeken-Sestrimo-Chaira cascade is the most powerful hydropower facility:	1 479 MW



6 planning regions
28 district regions
265 municipalities



National energy saving targets to 2020 (NEEAP 2014-2020)

Indicator	Year	2012	2016	2020
PEC — reference scenario	ktoe	18 305	18 382	18 460
PEC — target scenario	ktoe	-	17 587	16 870
FEC — reference scenario	ktoe	9 044	9 200	9 355
FEC — target scenario	ktoe	-	8 842	8 639
FEC saving target	ktoe	-	358	716
PEC saving target	ktoe	-	795	1 590



Energy Efficiency Obligation Scheme

Introduced 2008

Updated 2014

Energy suppliers:



Electrical energy < 20 GWh/ann.

- ✓ Mixed approach – Alternative measures introduced 2016 as a supplemented approach to the suppliers obligation



Heat energy < 20 GWh/ann.

- ✓ Total amount of savings – 1 942 ktoe cumulative savings 2014-2020



Natural gas < 1 mln. nm³/ann.



Liquid fuels < 6,500 tones /ann.
(fuels for transport excluded)



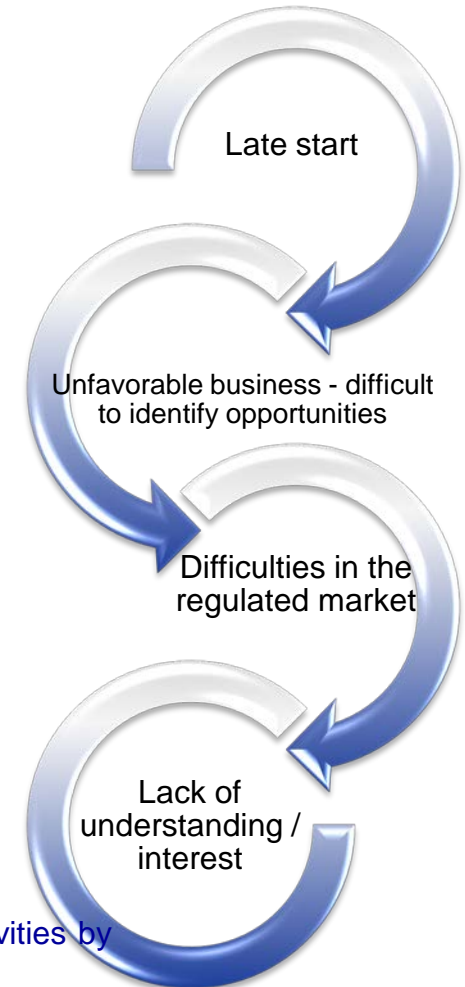
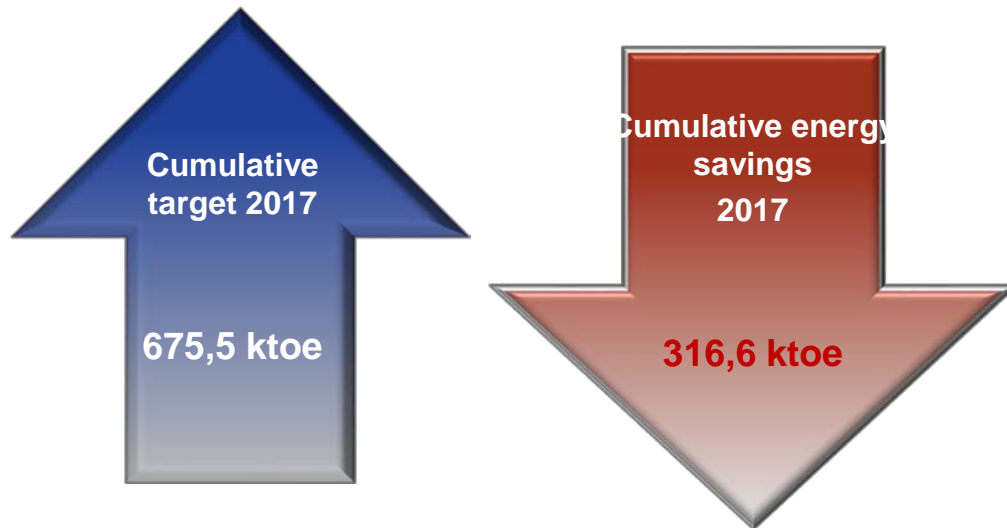
Solid fuels < 13,500 tones /ann.

2017 – 112 obligated companies





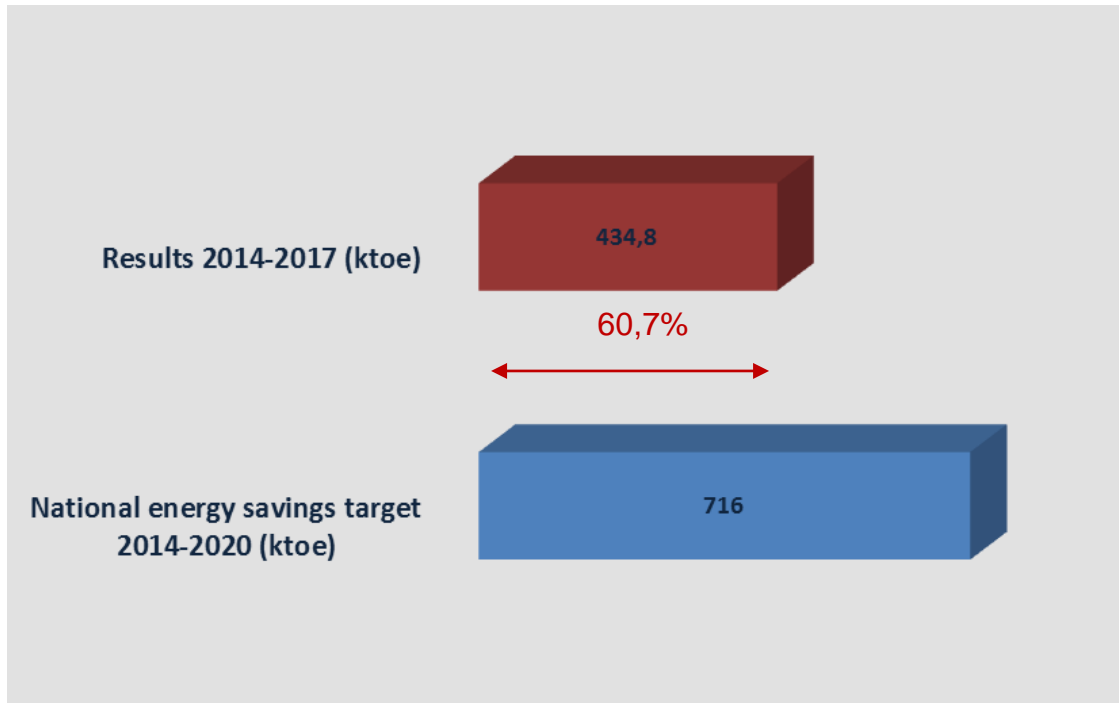
Progress towards Energy Efficiency Obligation Scheme in 2017



Some recommended steps:

- Incentives / compensation in connection with the expansion of energy suppliers' activities by introducing appropriate financial mechanisms
- Identifying opportunities to increase the share of use of alternative measures in the EEOS.
- Facilitated procedures for demonstrating energy savings - "deemed energy savings"

Progress towards National energy efficiency target

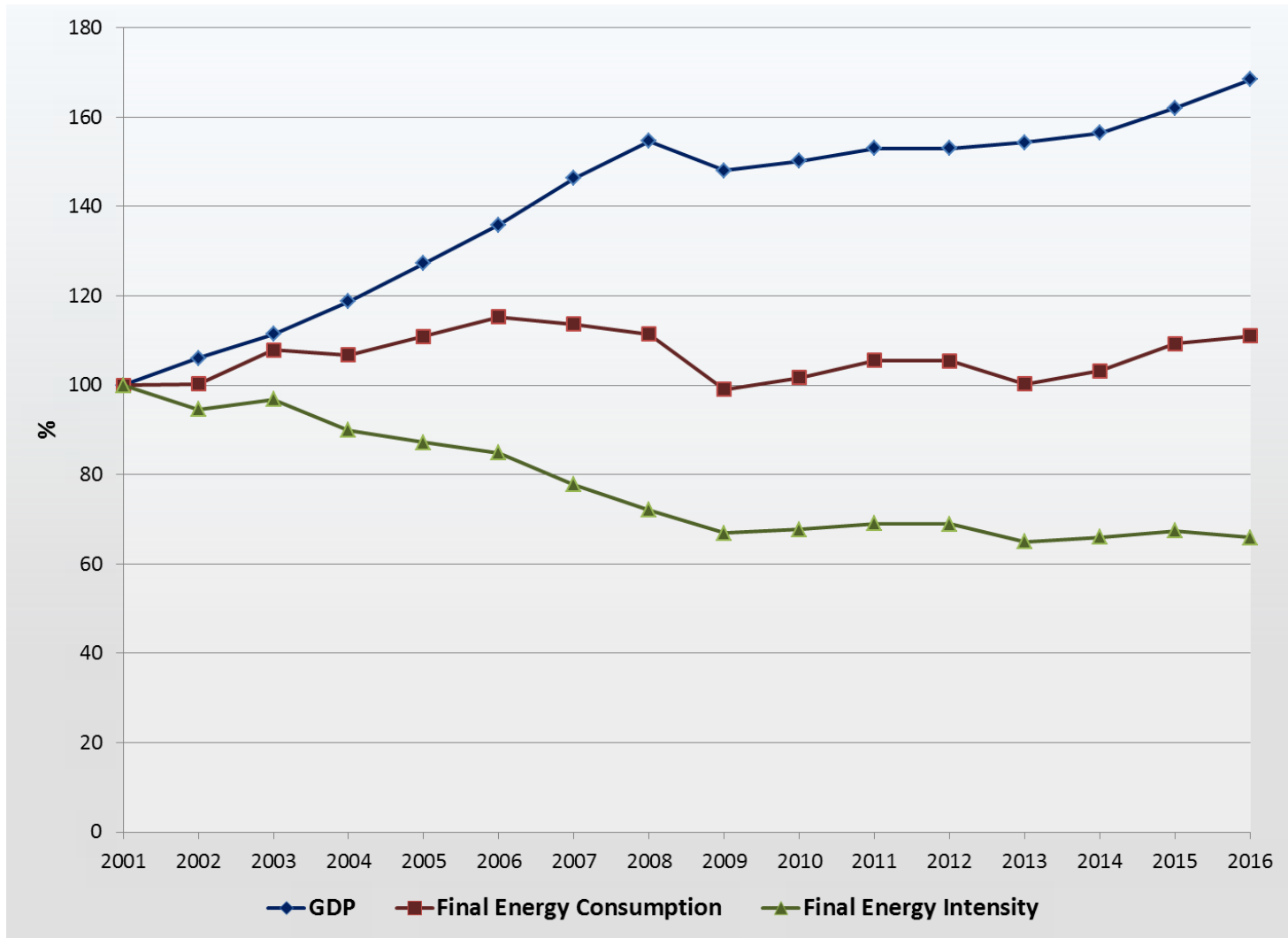


Annual report on NEEAP implementation, March 2017, SEDA



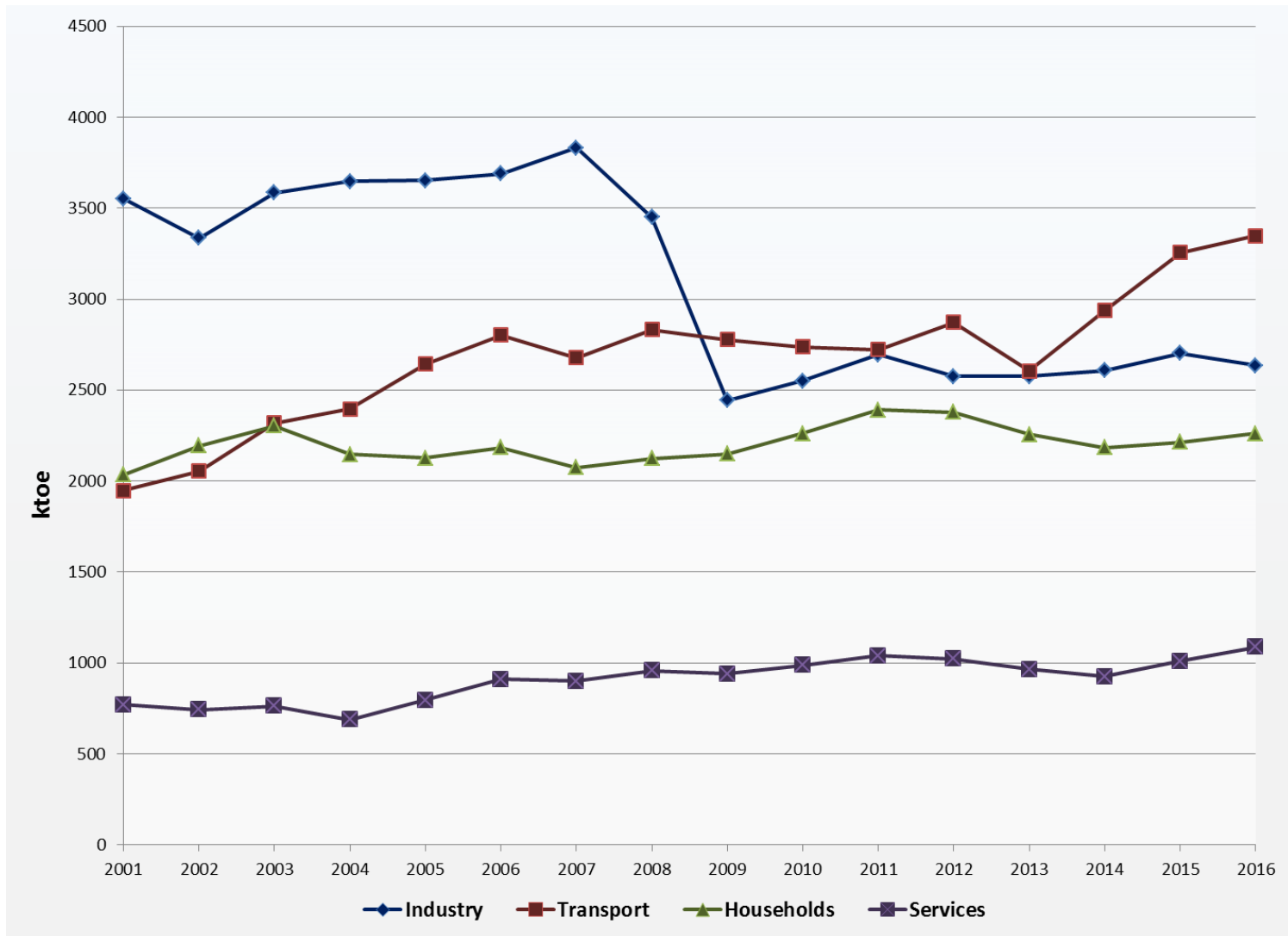


Final energy consumption





Final energy consumption of the main sectors



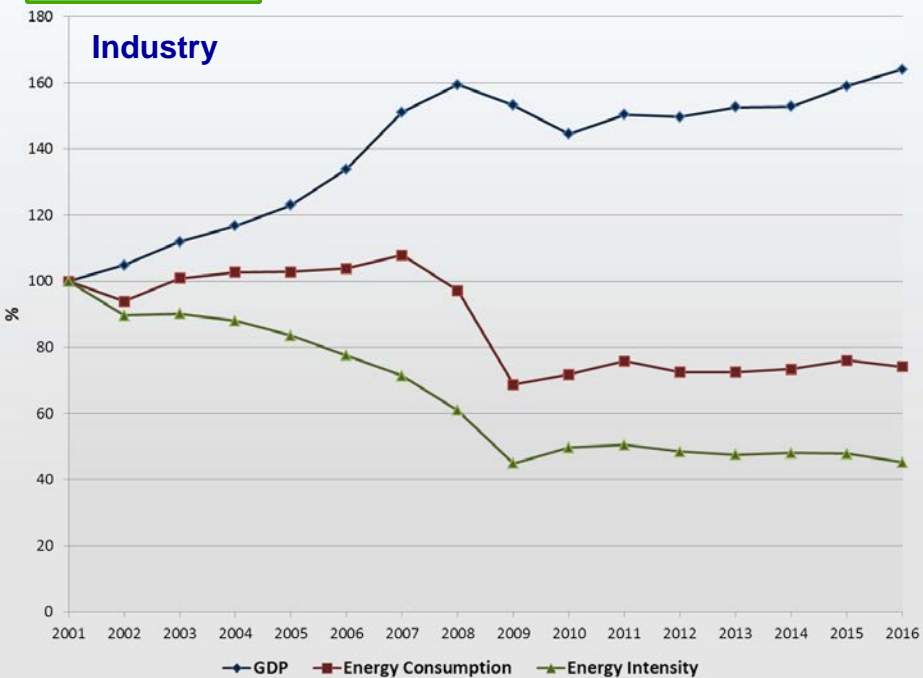


Final energy consumption by sectors (1)

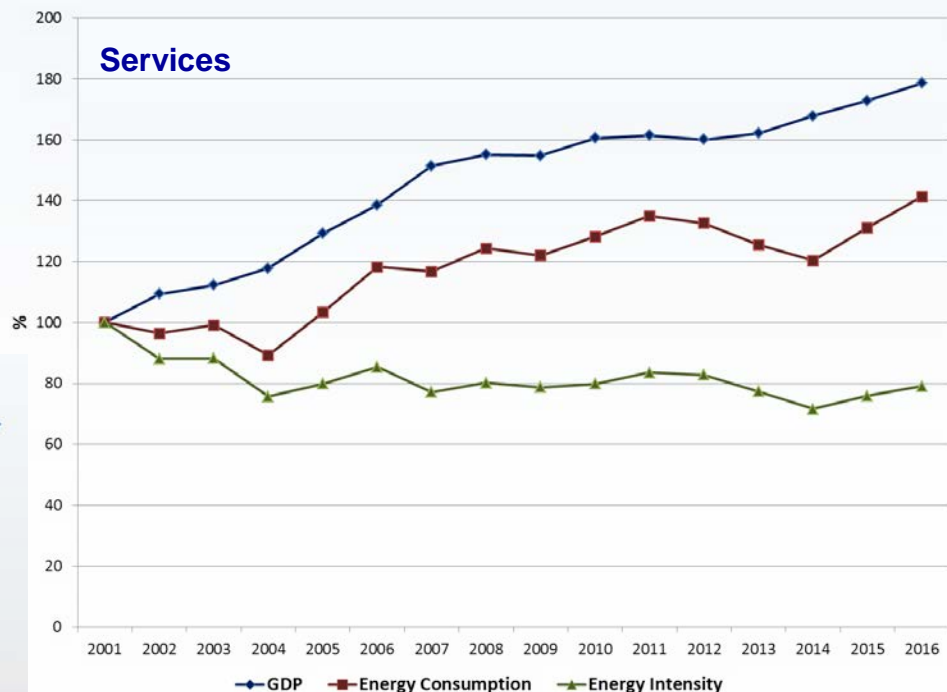


Increased energy efficiency

Industry



Services

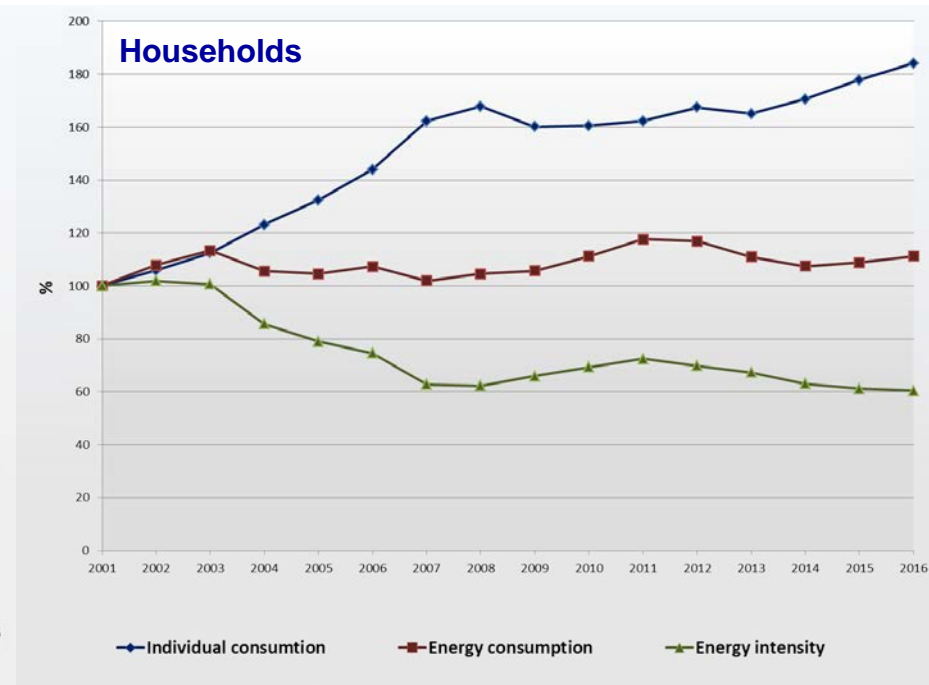
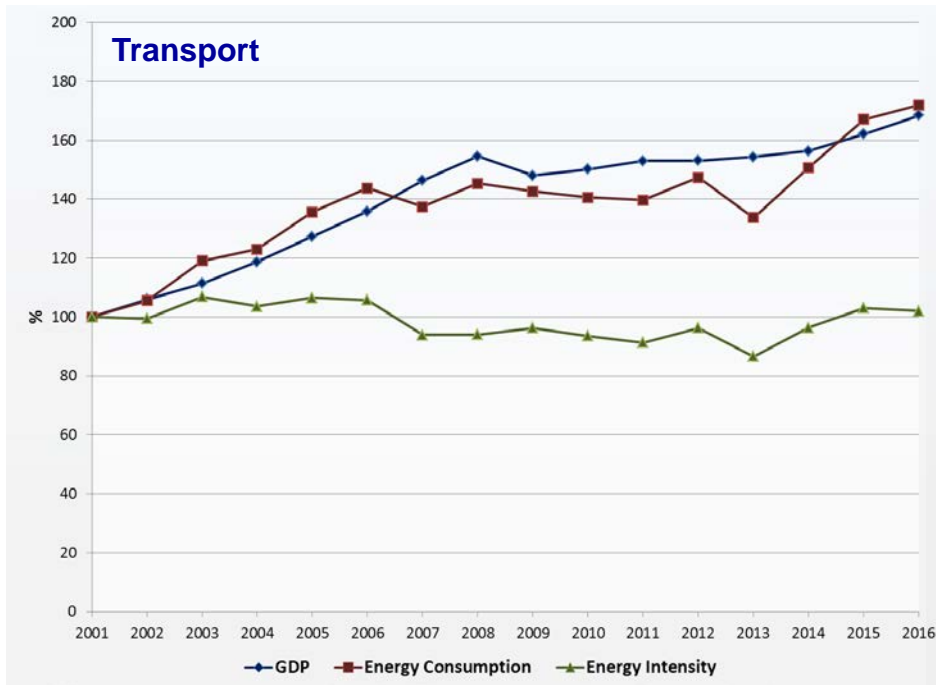


Worsen energy efficiency

- Increased number of employees in the sector
- Increased area of public buildings;
- Increased level of energy comfort in public buildings.



Final energy consumption by sectors (2)



High energy consumption

- Increased consumption of the most inefficient transport – air transport
- Increased consumption of the road transport;
- Increased share of personal cars/bad technical condition of the car park.
- Decreased share of the most efficient transport – railroad transport



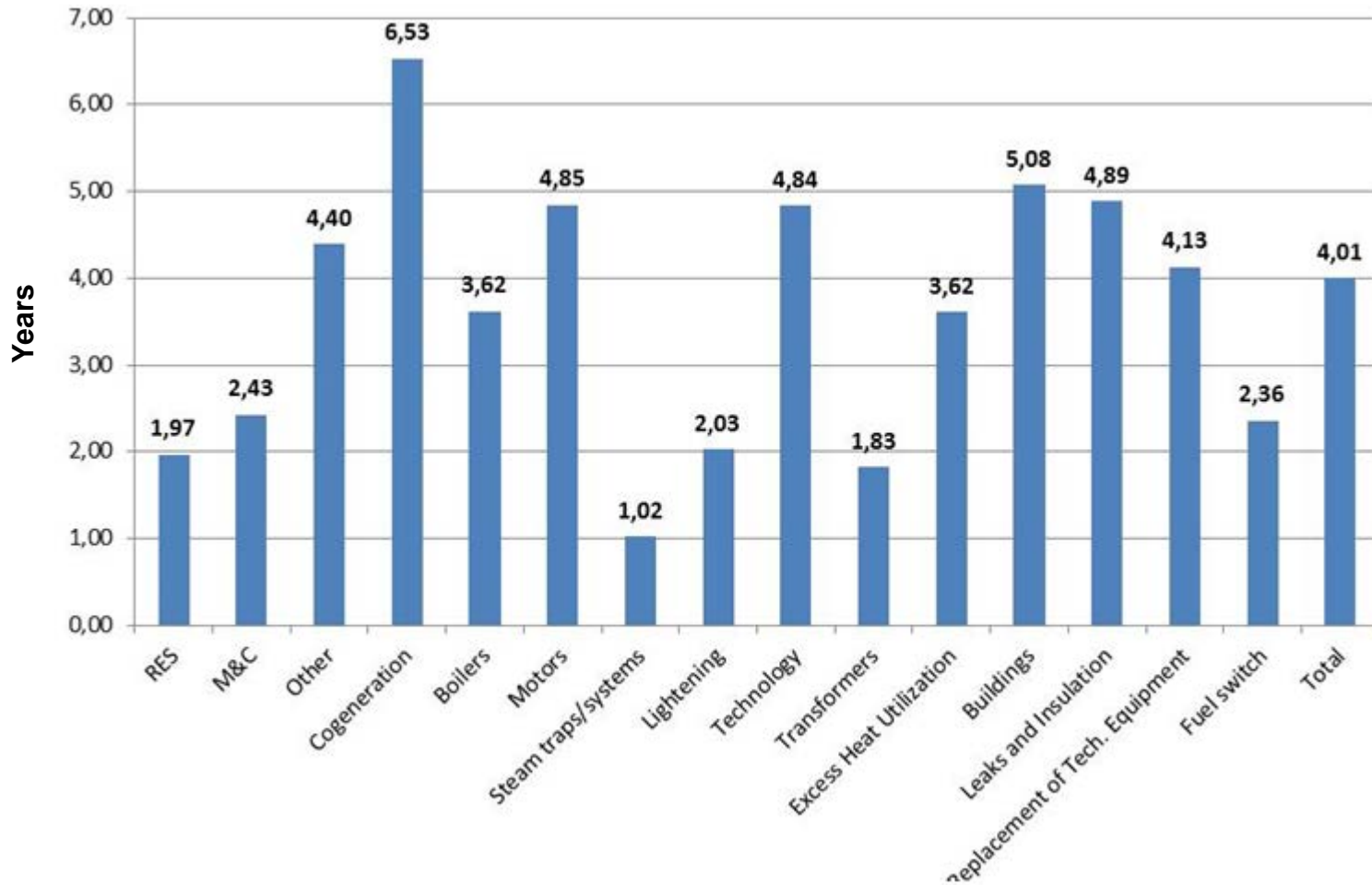
Better energy efficiency

Reducing energy intensity in terms of monetary consumption is an indicator of increased efficiency of household energy use, which limits the growth of energy consumption.





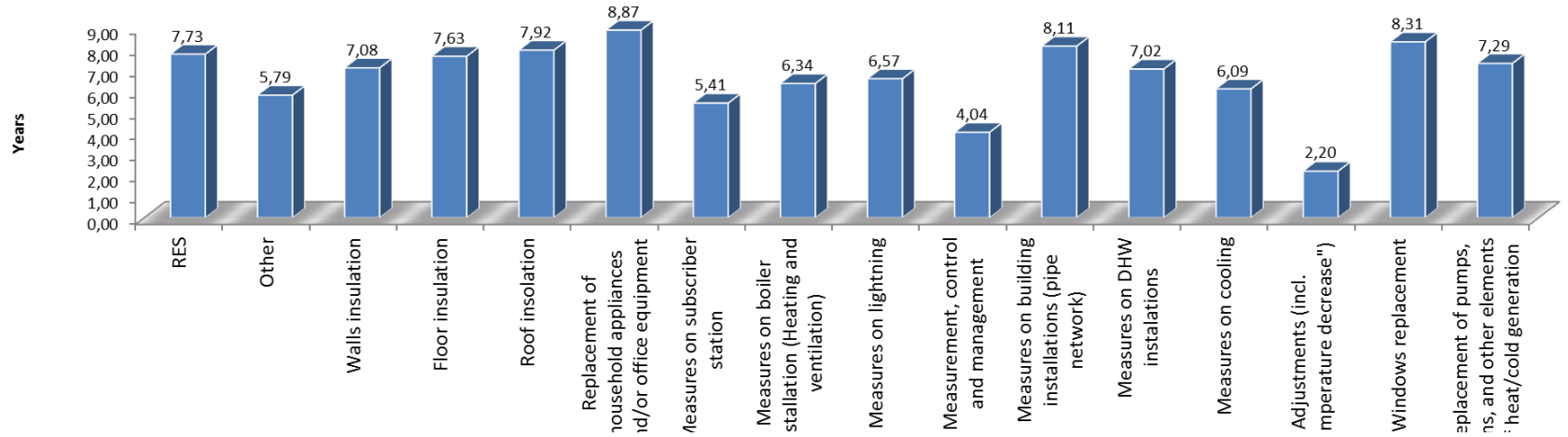
Energy Efficiency payback - Industry



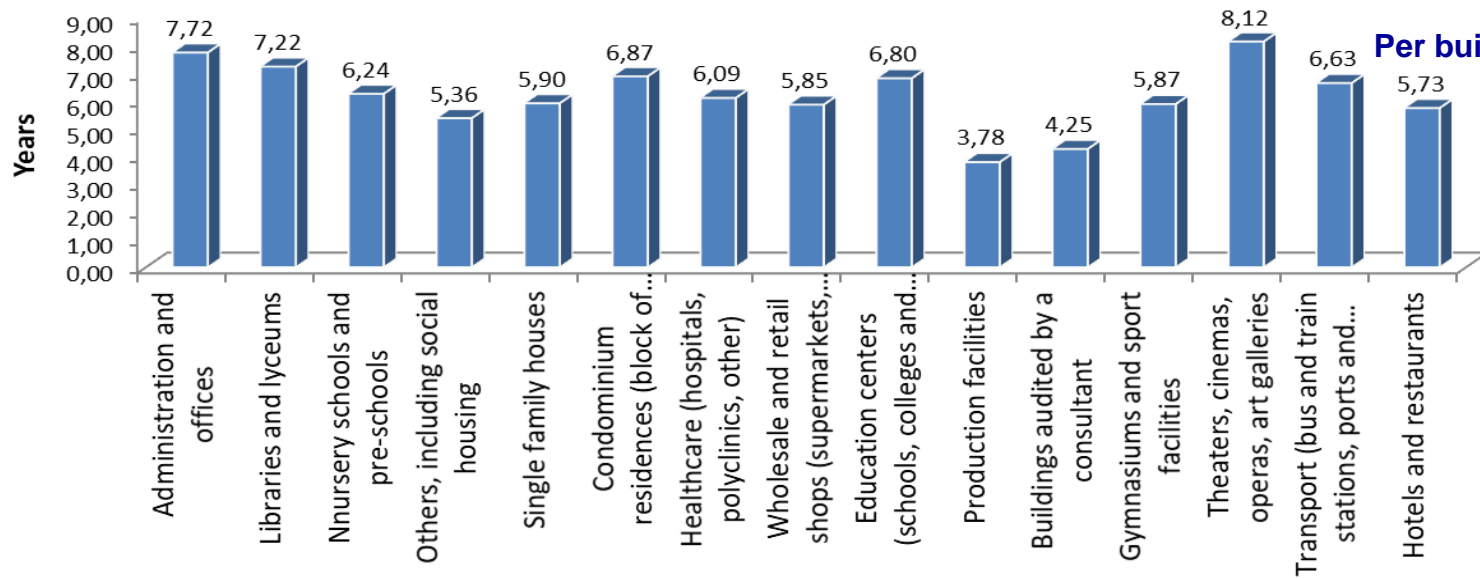


Energy Efficiency payback - Buildings

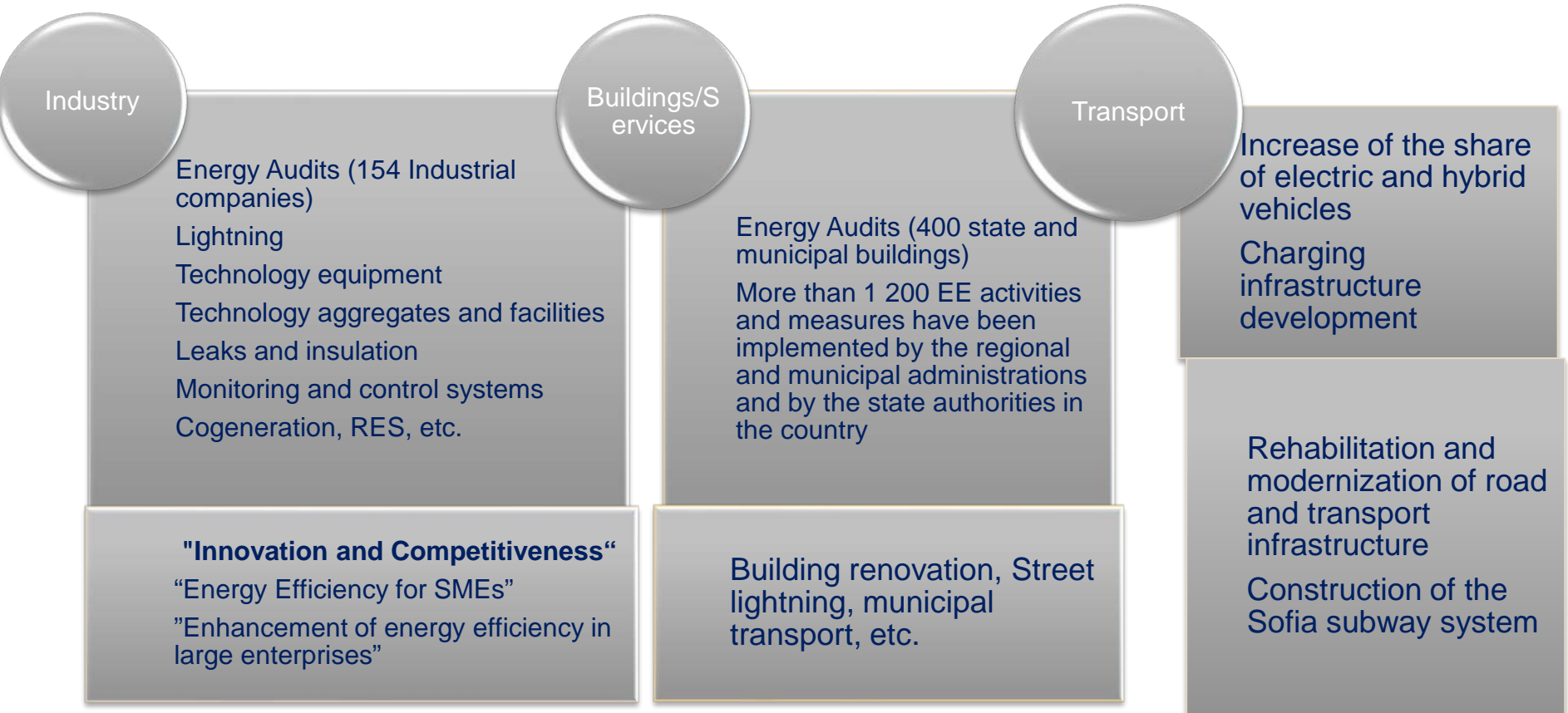
Per type of measures



Per building type



Energy Efficiency measures – NEEAP Annual report for 2017



TOTAL ENERGY SAVINGS IN 2017 (bottom-up): 1 524 GWh

Financing Energy Efficiency 2017

Industry



"Innovation and Competitiveness" OP

500 projects

425 mln. BGN grant support

Buildings/Services



„Regions in Growth“ OP - 17 contracts for public buildings and households; 31,7 mln. BGN grant support

BG04 Programme
34 projects; more than 20 mln. BGN

EE and RES Fund: 10 loan agreements; 6,9 mln. BGN.

National Trust EcoFund
- Up to 85% grant
- 32 projects EE in buildings, 13,9 mln. BGN grant support
- scheme for encouraging the use of electric cars

Households



Energy Efficiency of Multi-Family Residential Buildings National Programme:

- 100% grant
- 769 renovated residential buildings
- 760 mln. BGN

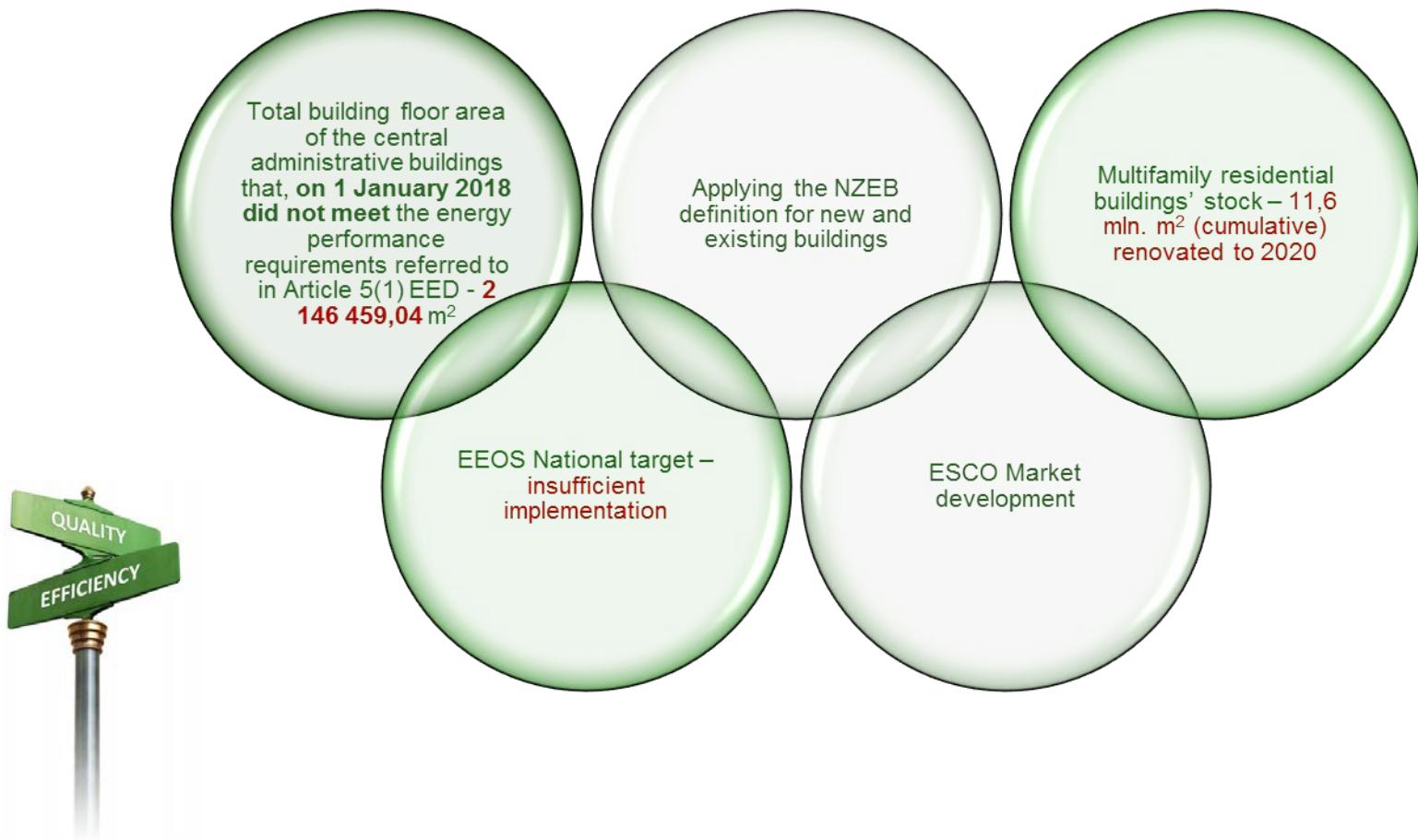
Residential Energy Efficiency Credit Line (REECL):

- 10-15% grant
- 725 projects
- 8,5 mln. BGN





Energy Efficiency potential





Thank you!



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