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1st IENE Energy and
Geopolitics Roundtable
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THE BULGARIAN ENERGY SECTOR— IS THERE A STRATEGY FOR SUSTAINABLE DEVELOPMENT?

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THE BULGARIAN RENEWABLE ENERGY SECTOR

MAIN STRUCTURE AND FIGURES

- About 11 % share of electricity generation in the country (excl. pumped-storage hydroelectricity)
- Approx. 13 % estimated share of electricity produced from RES in gross electricity consumption for 2013/2014 (20.8% is the target for Bulgaria by 2020)
- 1877 companies listed on the website of the Sustainable Energy Development Agency (SEDA) as of 18/03/2014
- 2009 - 2012 investments in the sector: more than € 4 billion
- Around € 2 billion FDI in the sector in the years of economic crisis
- Investments in the sector are entirely private and include investments in energy infrastructure, roads, social benefits



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INSTALLED CAPACITY

Total RES /excl.

pumped-storage hydroelectricity/

19,30% of total electricity installed capacity

Wind Power Plants

4,92% of total electricity installed capacity

Photovoltaic Power Plants

7,36% of total electricity installed capacity

Hydro Power Plants /excl. pumped-storage hydroelectricity/

6,85% of total electricity installed capacity

Energy Power Plants	Installed Capacity	Available Capacity at annual maximum
Nuclear Power Plants	2000	2000
Thermal Power Plants (lignite coal)	4 177	3 154
Thermal Power Plants (black and brown coal)	1 917	1 026
Thermal Power Plants (gas-fired)	794	401
Hydro Power Plants	3 161	3 115
Wind Power Plants	677	-
Solar Power Plants	1013	-
Biomass	23	23
Total	13 759	9 719

Source: ESO EAD, Annual Report 2012



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ANNUAL ELECTRICITY PRODUCTION, PLANT TYPE

Total RES /excl.

pumped-storage hydroelectricity/

11,02% of total produced electricity

Wind Power Plants

2,58 %

Photovoltaic Power Plants

1,70%

Hydro Power Plants

/excl. pumped-storage hydroelectricity/

6,68%

Biomass

0,07%

Total	47 195 341
Nuclear Power Plants	15 784 796
Thermal Power Plants (lignite coal)	19 944 550
Thermal Power Plants (black and brown coal)	3 103 498
Thermal Power Plants (gas-fired)	2 337 885
Hydro Power Plants	3 974 387
Solar Power Plants	800 684
Biomass	31 657



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ANNUAL ELECTRICITY CONSUMPTION

Annual Gross Consumption (MWh)

37 510 416

Total RES /excl.

pumped-storage hydroelectricity/

13,86% of gross electricity consumption

Wind Power Plants

3,25 % of gross electricity consumption

Photovoltaic Power Plants

2,13% of gross electricity consumption

Hydro Power Plants

/excl. pumped-storage hydroelectricity/

8,40 % of gross electricity consumption

Biomass

0,08% of gross electricity consumption



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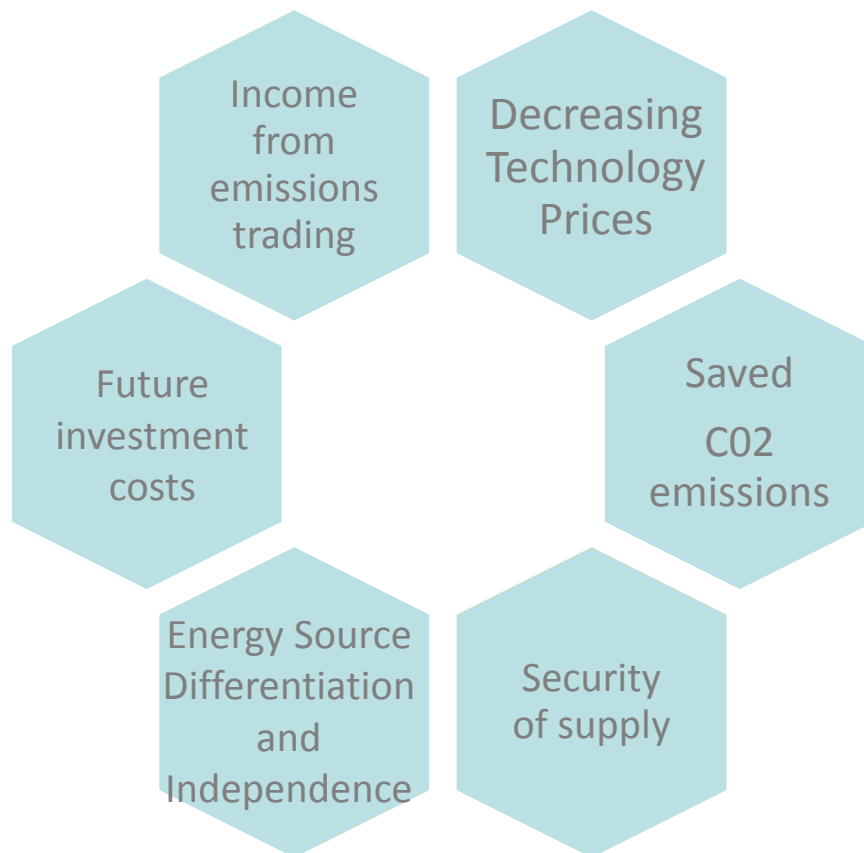
REGULATION AND RECENT LIMITATIONS IN THE RENEWABLE ENERGY SECTOR

- Limitations of RES generation
- Regulator's discriminatory approach of setting a permanent grid access price only for producers of solar and wind power
- Limitation of generation and 20% fee for PV and wind power plants from January 1st 2014
- Launch of electricity balancing market under pressure and lack of real market conditions
- Violation of Bulgarian and European Legislation



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SOLAR POWER IN BULGARIA – MARKET COMPETITIVE WITH THE CONVENTIONAL ENERGY SOURCES





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A VISION FOR FUTURE SUSTAINABLE DEVELOPMENT

Scenario 1: The European future

- Policy development supporting renewable energy infrastructure, including the simplification for small and medium installations
- Introduction of liberalized energy market
- Introduction of energy exchange
- Energy decentralization policy
- Investment guarantees
- Avoiding Illegal decisions
- Increasing jobs in the energy sector
- Energy independence
- Ensuring the future of the next generations





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A VISION FOR FUTURE SUSTAINABLE DEVELOPMENT

Scenario 2: A future without a future

- Moratorium on the connection of new renewable energy capacities
- Limitation of the renewable power plant generation
- Protection of monopoly
- Energy lobbying
- Bankruptcies in the renewable energy sector
- Loss of jobs in the sector
- Collapse in the banking system
- Dependency on import of energy carriers



THANK YOU FOR YOUR ATTENTION!



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