



## Market entry in the Bulgarian wind energy market



*Adding value to energy ventures.*

# Agenda

- I. Bulgarian CO2 reduction commitments
- II. Barriers to renewable energy development
- III. Support policy strategy
- IV. Conclusions

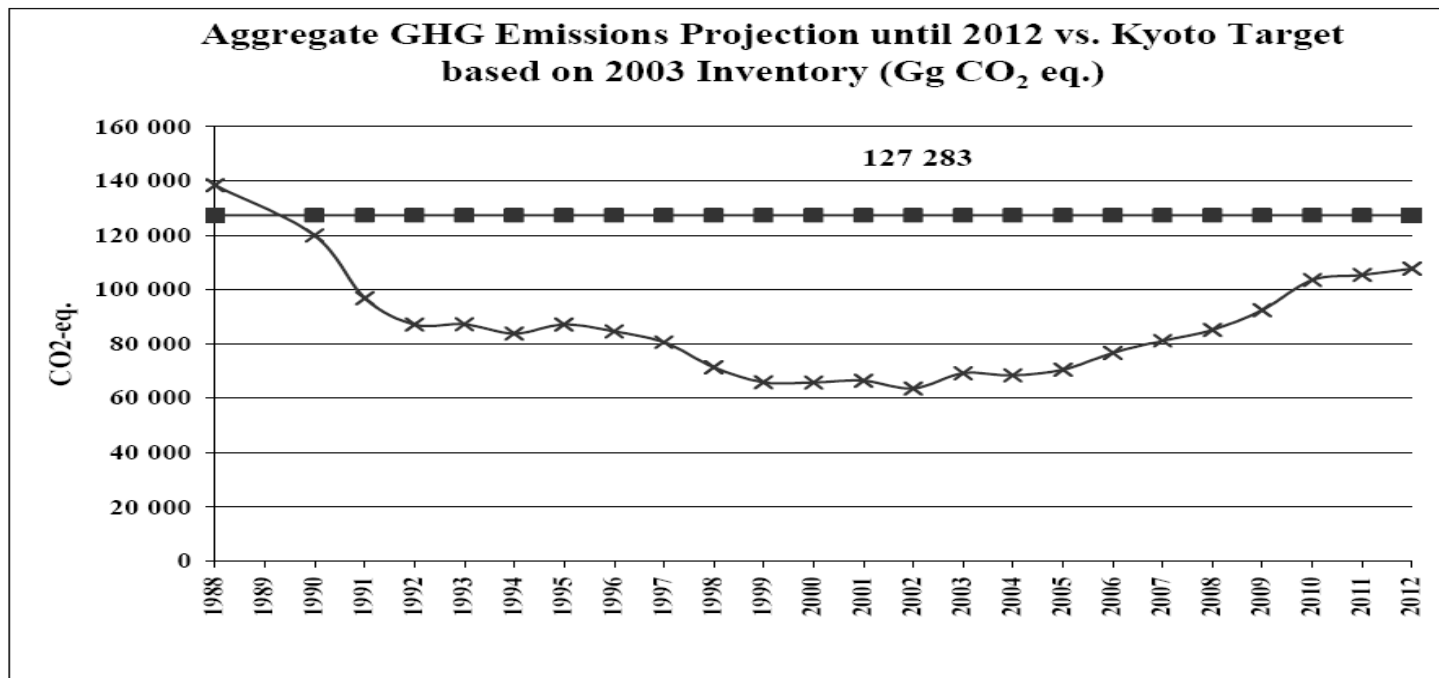


# I. CO2 reduction commitments



# The country shouldn't have problems fulfilling its Kyoto commitments...

Commitment: 8% for the 2008–2012 period with 1988 serving as base year



## The EU pressurizes the Bulgarian Government to support renewables...

- Indicative target of 11% of gross electricity consumption by 2010
- By 2006, the share of renewables in electricity consumption was 6.8%
- The EU Commission has awarded Bulgaria grade two out of three for recent growth and grade three for progress made, with three being the lowest grade



## II. Barriers to renewable energy development



## Challenges to implementation:

1. Business environment
2. Electricity market
3. Access to finance

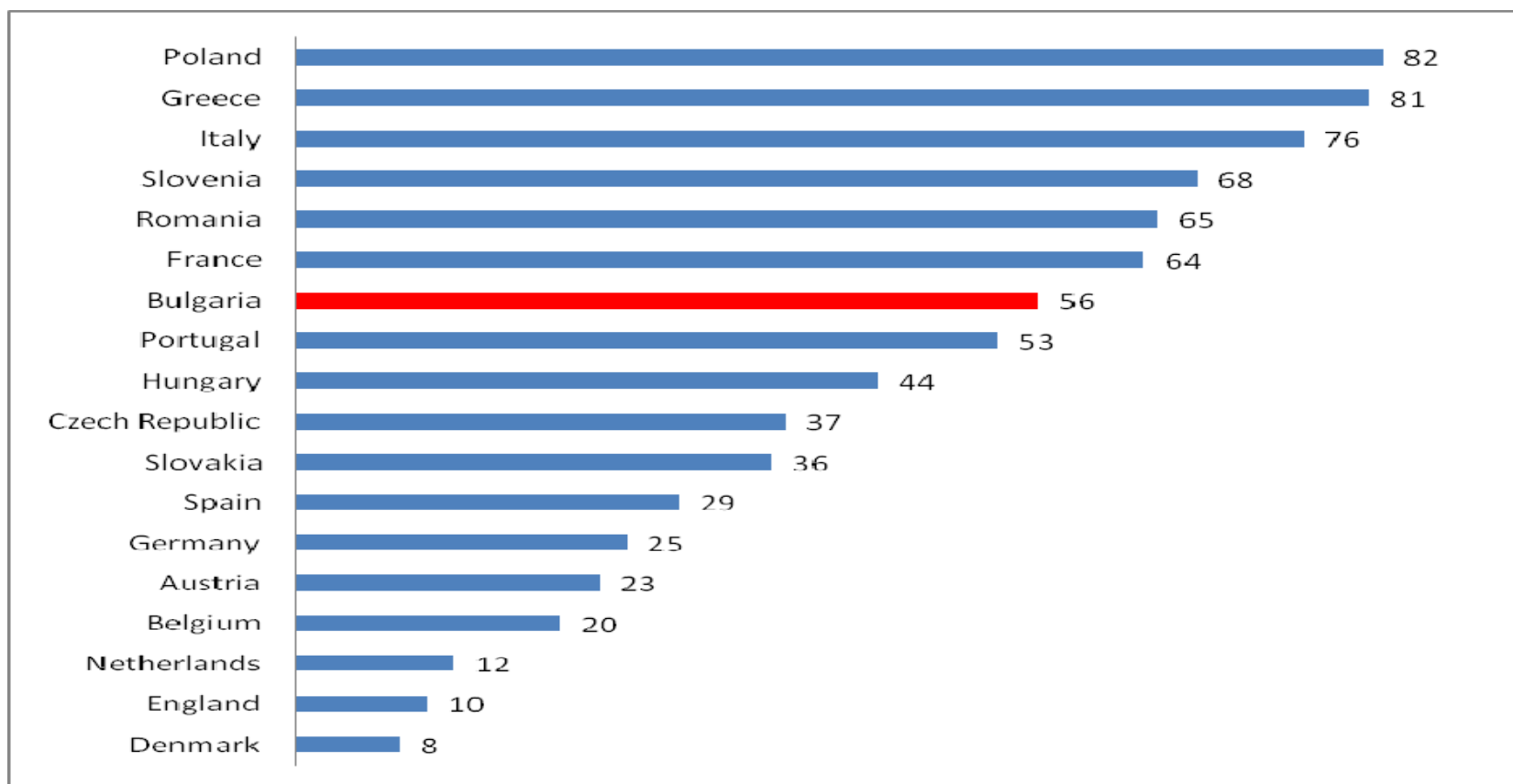


# 1. BUSINESS ENVIRONMENT





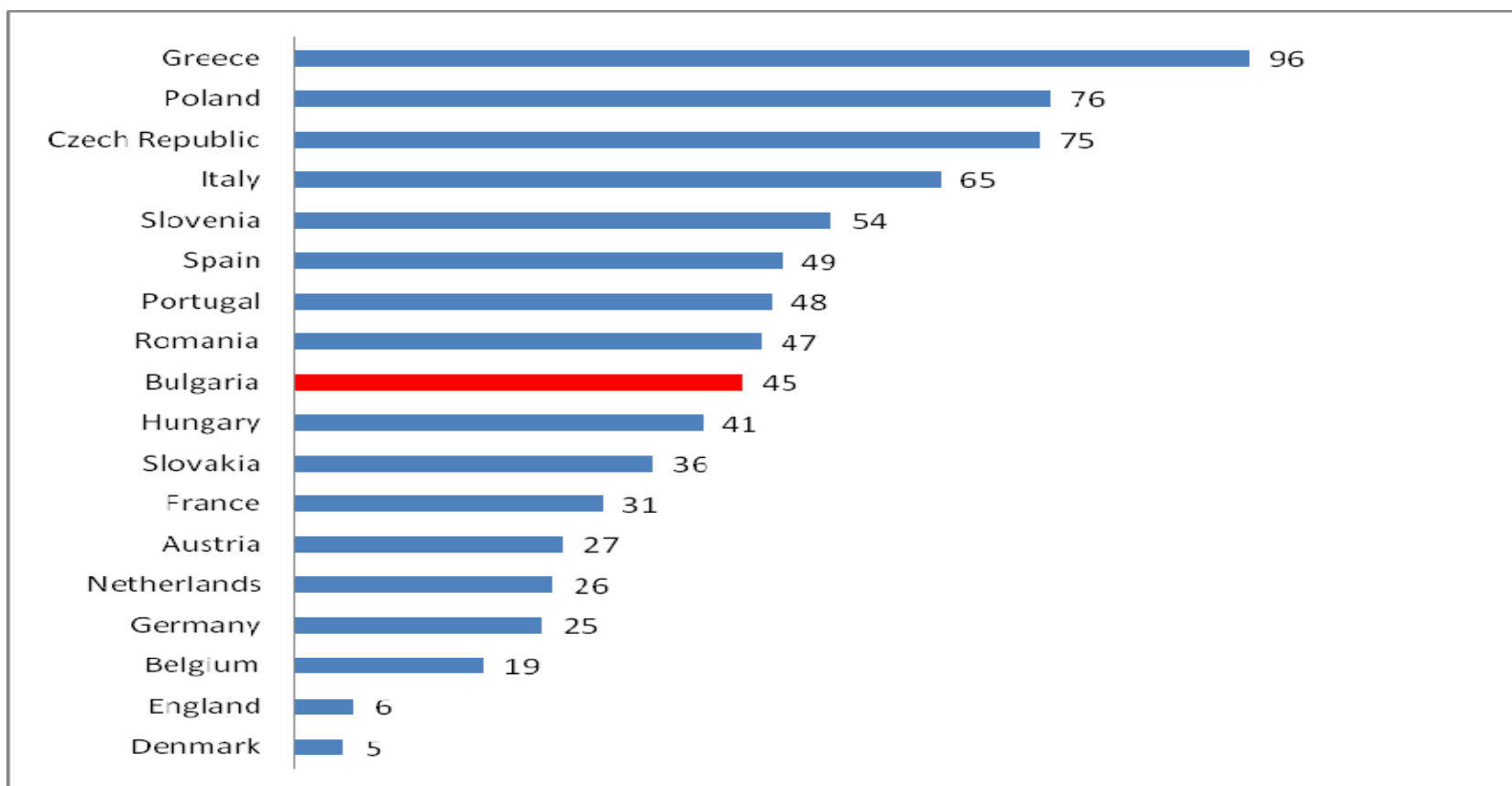
## Index on economic freedom world ranking (For 2008, selected EU countries, out of 157)



Source: The Heritage foundation



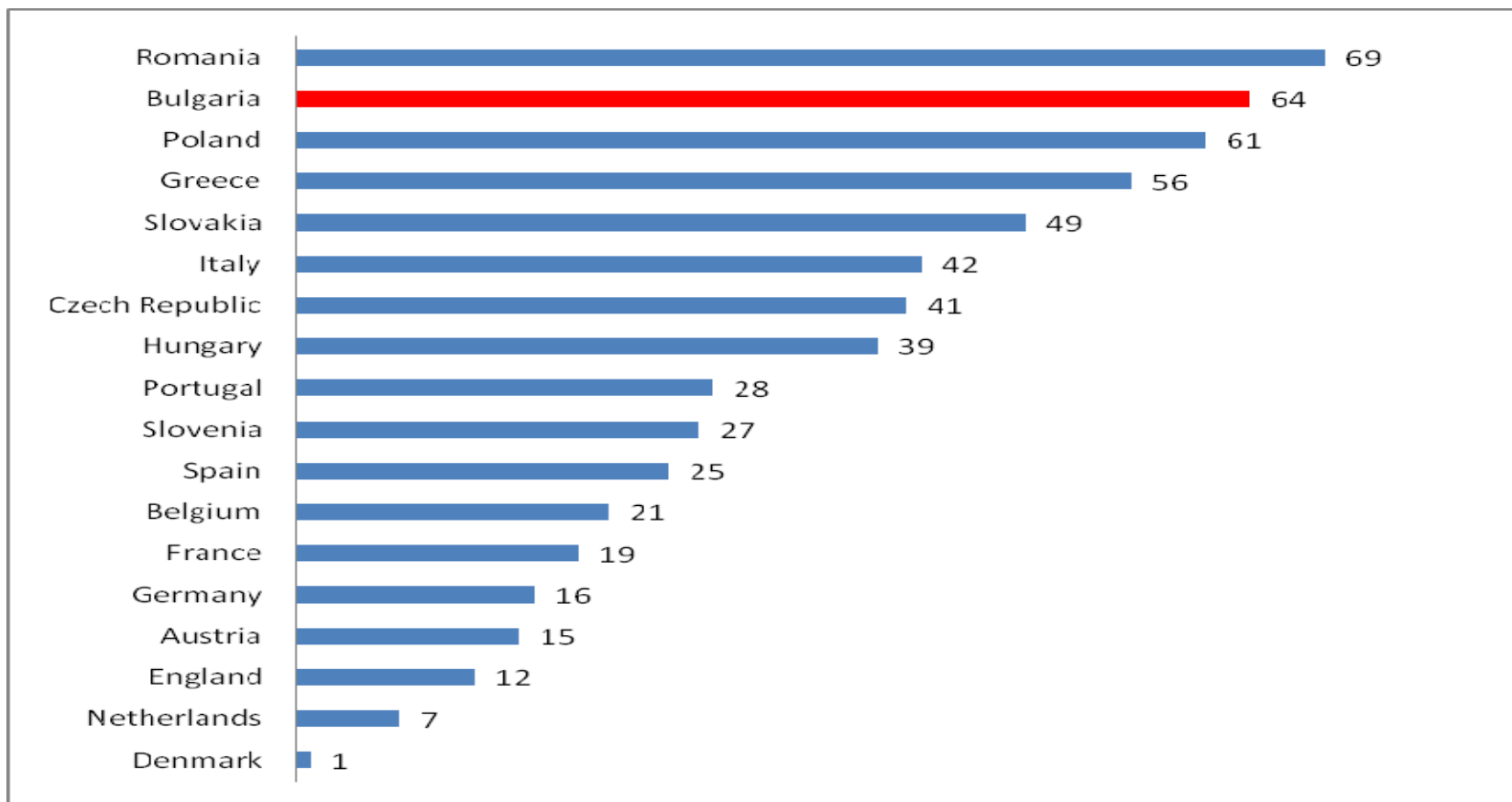
## Index on ease of doing business world ranking (For 2008, selected EU countries, out of 182)



Source: The world Bank



## Index on Transparency (For 2008, Selected EU countries, out of 180)



Source: Transparency international



## 2. ELECTRICITY MARKET

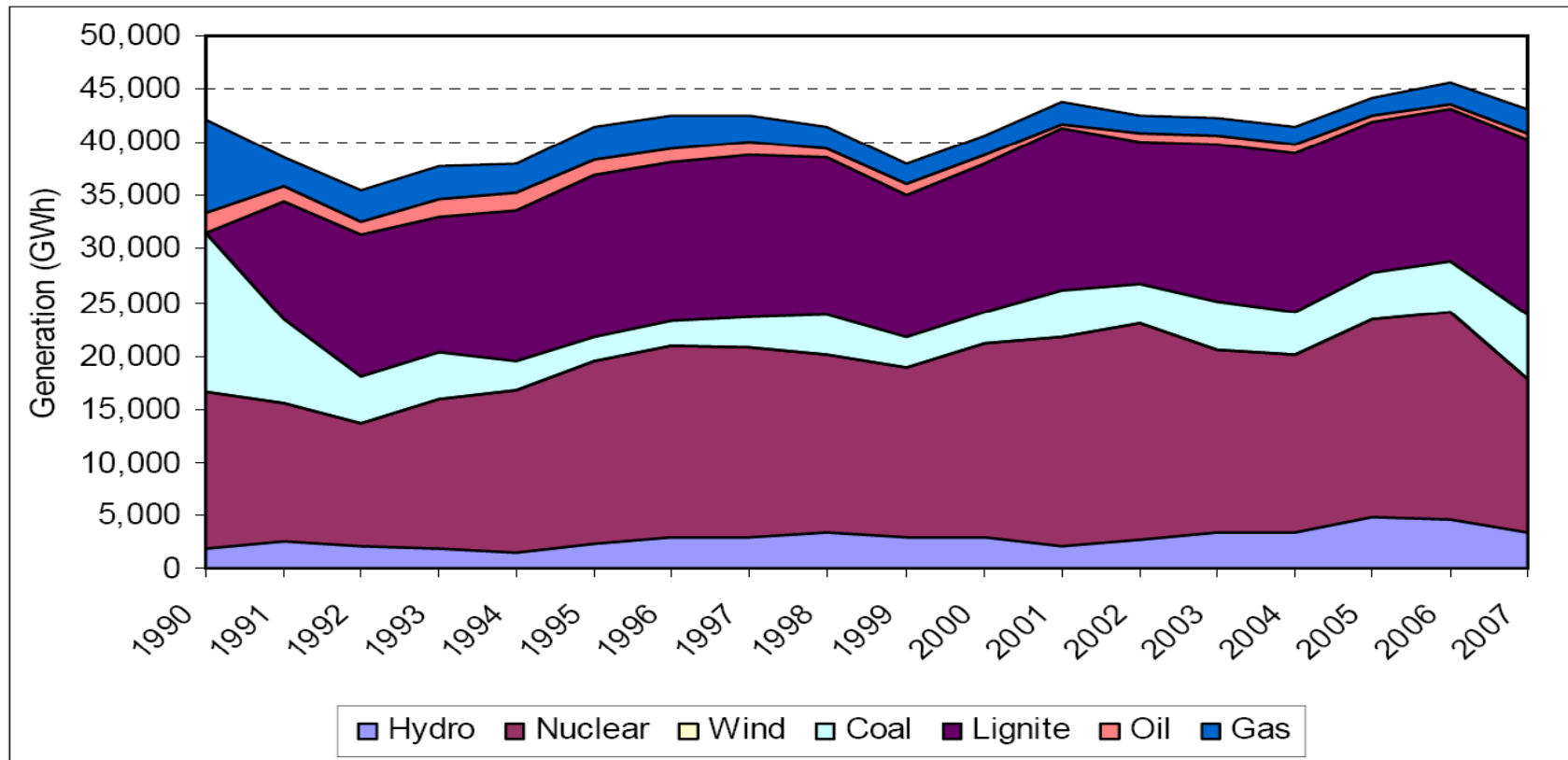


## High installed capacity

<b>Type of Capacity</b>	<b>Capacity (GW)</b>
Nuclear Power	2.00
Fossil Fuels	6.26
<i>of which, Lignite</i>	3.23
<i>of which, Hard Coal</i>	2.14
<i>of which, Gas</i>	0.45
<i>of which, Mixed Fuels</i>	0.44
Renewables	2.91
<i>of which, Wind</i>	0.05
<i>of which, Storage Hydro</i>	1.55
<i>of which, Run-of-River Hydro</i>	0.30
<i>of which, Mixed Pumped-Storage Water</i>	1.01
<b>Total Generating Net Capacity</b>	<b>11.17</b>



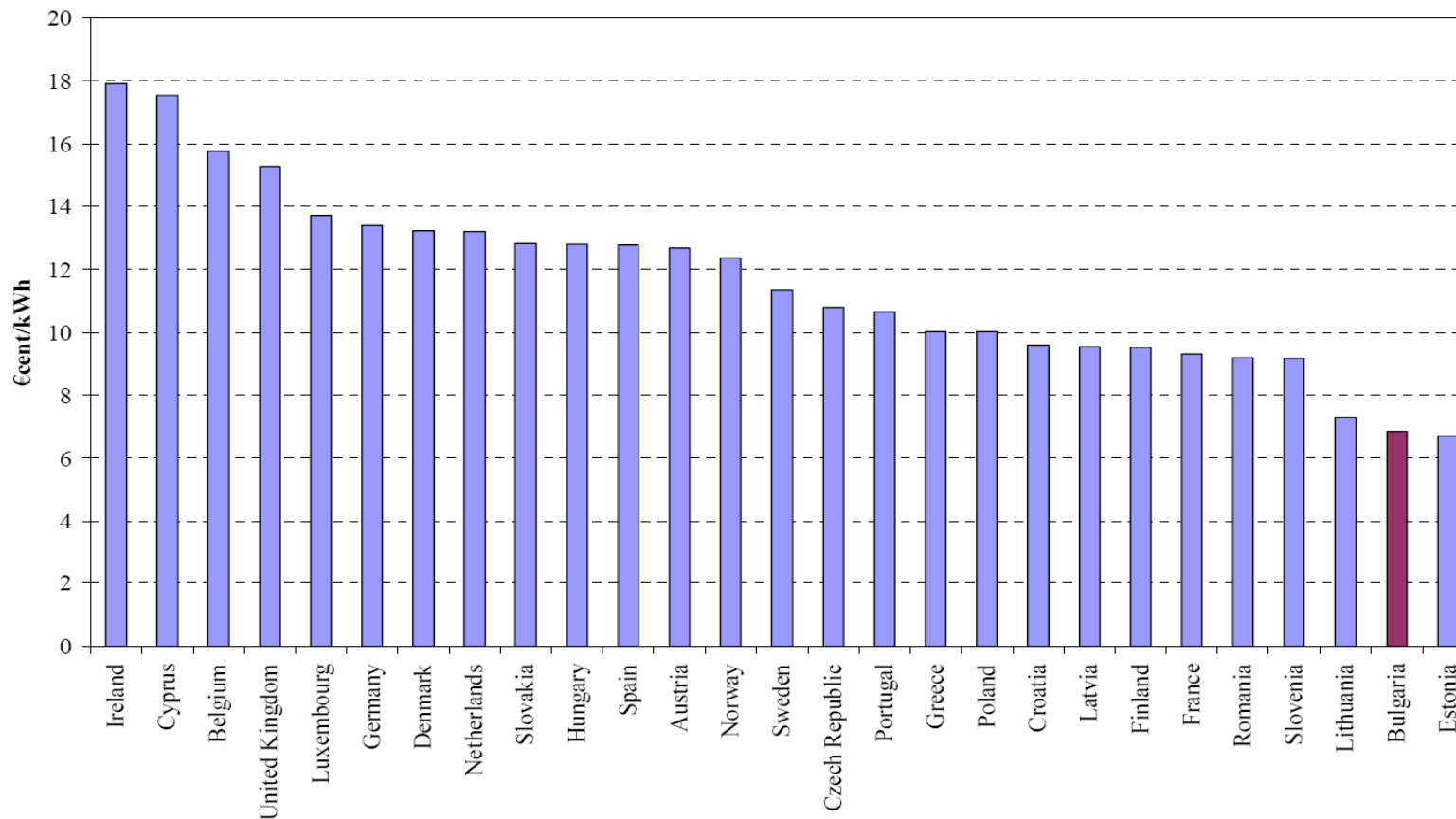
## The balance of output has remained stable over the last decade...



Source: Eurostat



# Low and subsidized electricity prices



Source: Eurostat



## 3. ACCESS TO FINANCE





## Financing conditions have worsened...

- Limited liquidity in the market
- Reduced banking capacity
- Worsened financing conditions
- More demanding lending practices
- Less risk tolerance



## Bulgaria has a BBB credit rating...

- Capital is restricted depending on credit rating
- Cost of capital might be too high for some countries

	Moody's	S&P
Investment Grade rating	Aaa	AAA
	Aa	AA
	A	A
	Baa	BBB
Below investment grade ("Junk Bond")	Ba	BB
	B	B
	Caa	CCC
	Ca	CC
	C	C
In Default		D



# III. Bulgarian support policy strategy



## Bulgaria currently relies on a form of Feed-in tariff (FiT)

- Supported by a 15 year off-take contract
- The tariff is re-set annually by the energy regulator
- The re-set process is subject, by law, to two constraints
  - Must be 80% of the average electricity retail price in the previous year
  - A supplement on top of this price that is at least 95% of that which applied in the previous year



## Current support scheme - significant regulatory risk!

- Little transparency and predictability
- Limited protection for investors
- Regulators have reinterpreted the legal definitions without any apparent justification...



## **New regulatory system to be introduced by end 2011**

- No clarity on what the new system may look like
- Possibly based on tradable green certificates
- Unclear as to what status existing projects will bear under any new system



## IV. Conclusions



## **In order to attract investors, Bulgarian authorities should provide...**

- clear and transparent rules
- protection against established technologies
- bankable policies
- certainty over future policy developments





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Merdelou / Fontanelles, France

€ 25.8 Mio. Project Financing  
Structured by ESF in 2002



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...to energy ventures.*