

The Larger Europe – Implications for Climate Policy

**When environmental challenges spill over
into energy policy problems**

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Climate change *crusade*

- EU climate – energy package
- Green catch-up agenda and Poland

The Process of European Integration and Energy Policy Development

*'Energy has always been a political market.
(...) and the politicization of energy markets
is increasing at pace.'*

Jeremy Wilcox, 2007

Theoretical background

Europeanisation

misfit

Europeanisation – Conditionality

- Gate-keeping: *f.e.* access to negotiations and further stages in the accession process,
- Benchmarking and monitoring,
- Models: provision of legislative and institutional templates,
- Money: aid and technical assistance,
- Advice and twinning.



EUropeanisation *misfit* - Empirical Case

- Political Background
- Energy Strategy

Objectives of Polish Energy Policy:

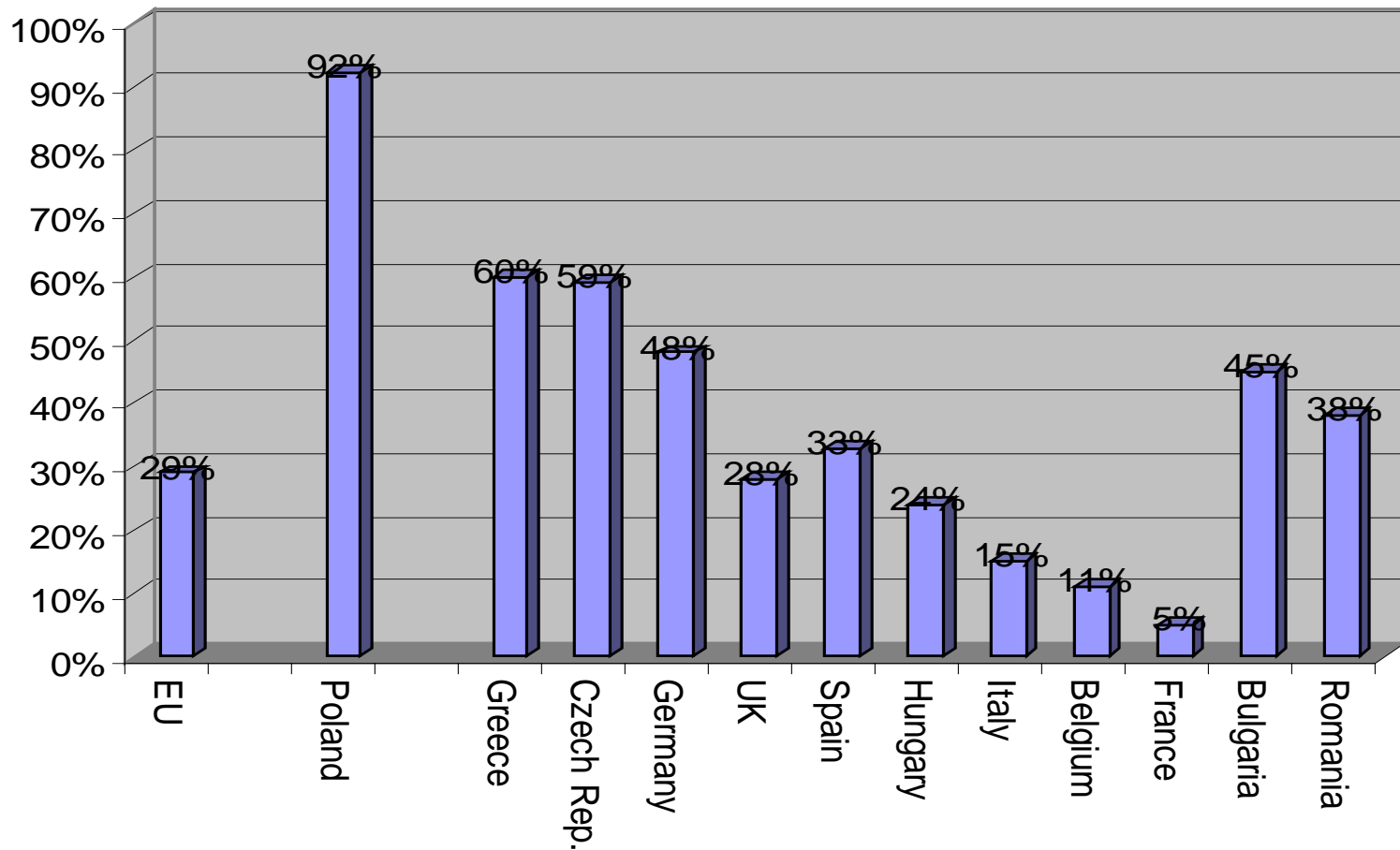
- Energy security
- Growth of economy
competitiveness - energy efficiency
- Environment protection from
negative effects of producing and
distributing energy

ENERGY SECURITY

Energy security is defined as a state of economy allowing to cover contemporary and perspective demand for fuels and energy of final receivers (individual consumers / companies) in a technically and economically justifiable way, accompanied with minimalisation of negative impact of energy sector on environment and society's living conditions

Coal share in energy production

Coal share in energy mix in selected EU Member States



The most important elements of climate – energy package... for Poland:

modification of EU ETS, including:

- ◆ 2013 – 100% of emission allowances for energy plants and gradual – from 20% in 2013 to 100% in 2020 for other sectors
 - greenhouse gas limits for non-ETS sources on 114% (base 2005)
- ◆ 15 % renewables
- ◆ CCS obligatory < 300 MW

ENERGY POLICY VARIANTS

Symbol of a VARIANT	Major characteristics	Interpretation
BAU Continuation	<ul style="list-style-type: none"> - Energy sector functions as it functioned before 2007 - CO2 emissions allowances price = 0 	Comparative Variant – what of there was no EU energy policy
ODN Reference	<ul style="list-style-type: none"> - no new provisions - CO2 emissions allowances price = 20,- EURO/t, mostly free allocation of allowances - Renewables goals as today = 7,5% and 5,75% biofuels (2010) 	Comparative Variant – if we continue as it is ...
EU_CO2	<ul style="list-style-type: none"> - After 2013 emission allowances = 39,- EURO - 2013 – 100% of emission allowances for energy plants and gradual – from 20% in 2013 to 100% in 2020 for other sectors - incomes from ETS directly in5o the budget and indirectly the households - no new items in renewables and biofuels 	Comparative Variant – if we improve only the emissions part
EU-MIX	<ul style="list-style-type: none"> - CO2 emissions as above - New goals in renewables – 15%, biofuels 10% (2020) 	Comparative Variant – improved the emissions part and renewables and biofuels
EU-CCS	<ul style="list-style-type: none"> - CO2, renewables and biofuels as above - Obligatory CCS ready – 2025 	Comparative Variant – full energy policy

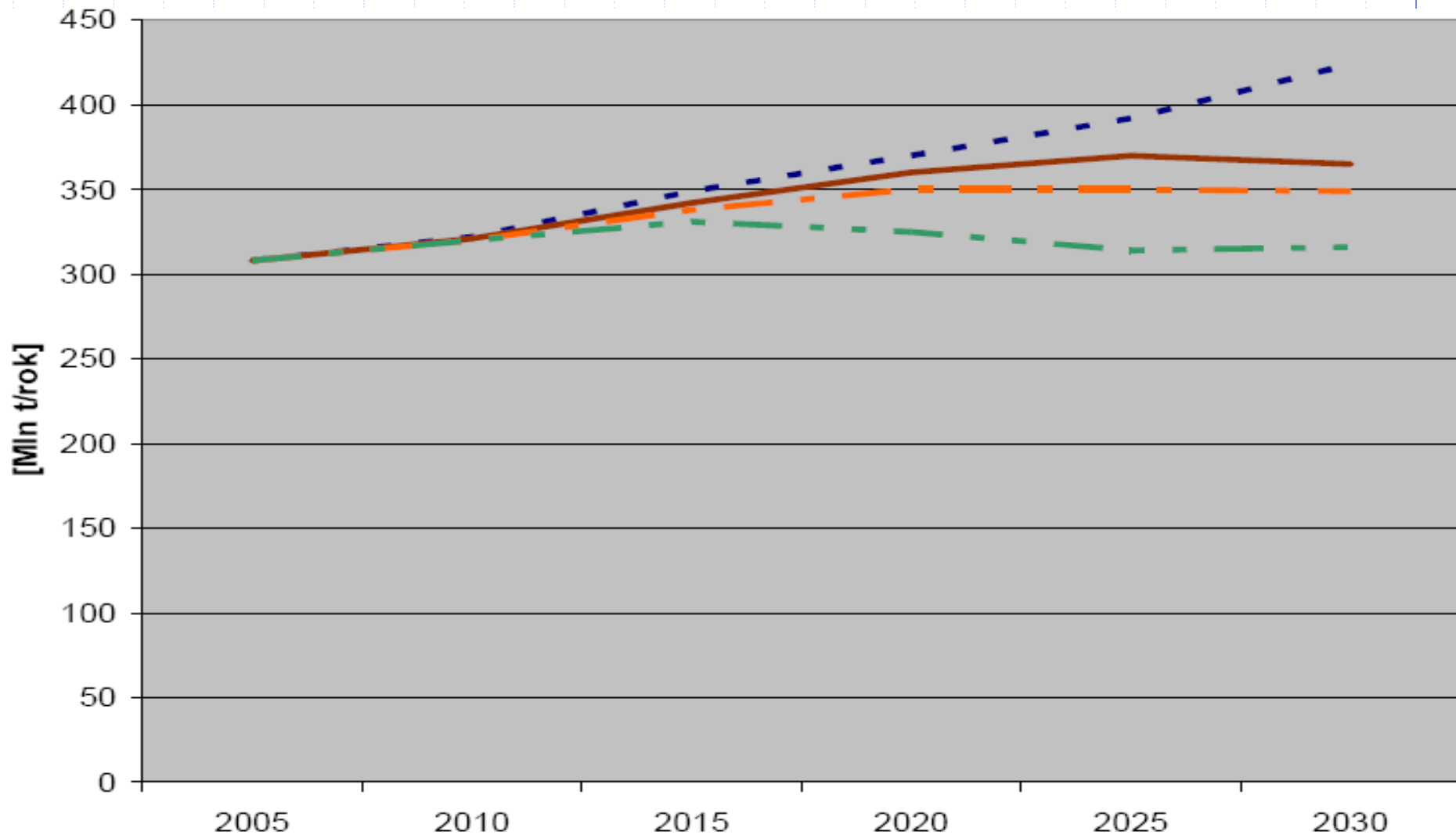
Other parameters:

Monetary unit – PLN (4,05,- PLN = 1 EURO)

Forecasted GDP growth – 5,1% (???)

◆ 3,4 – 6,7% (EU funds = 1,2-1,3 % GDP)

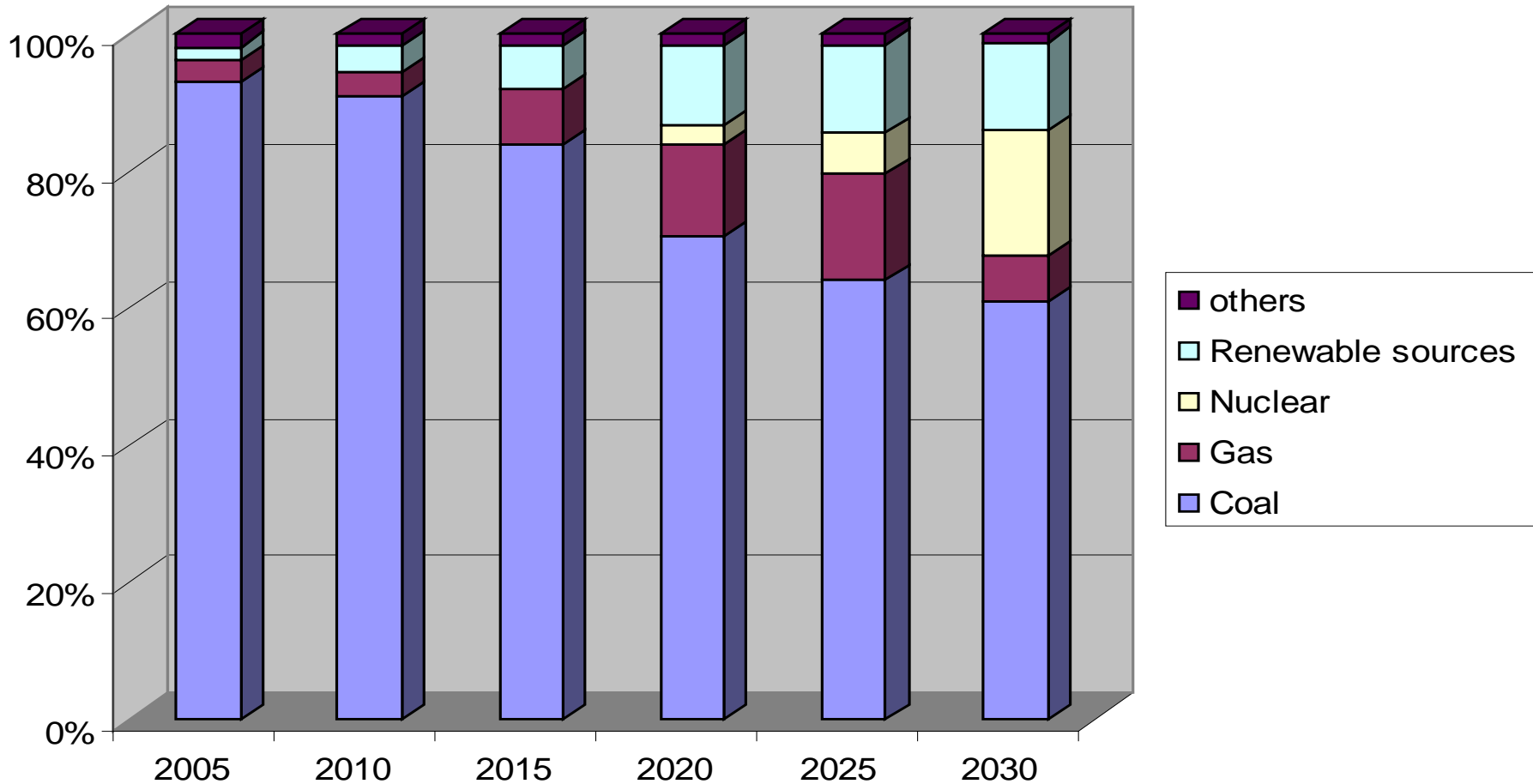
CO2 emissions in various scenarios:



Energy Production / fuels

EU-MIX scenario

Forecasted energy mix

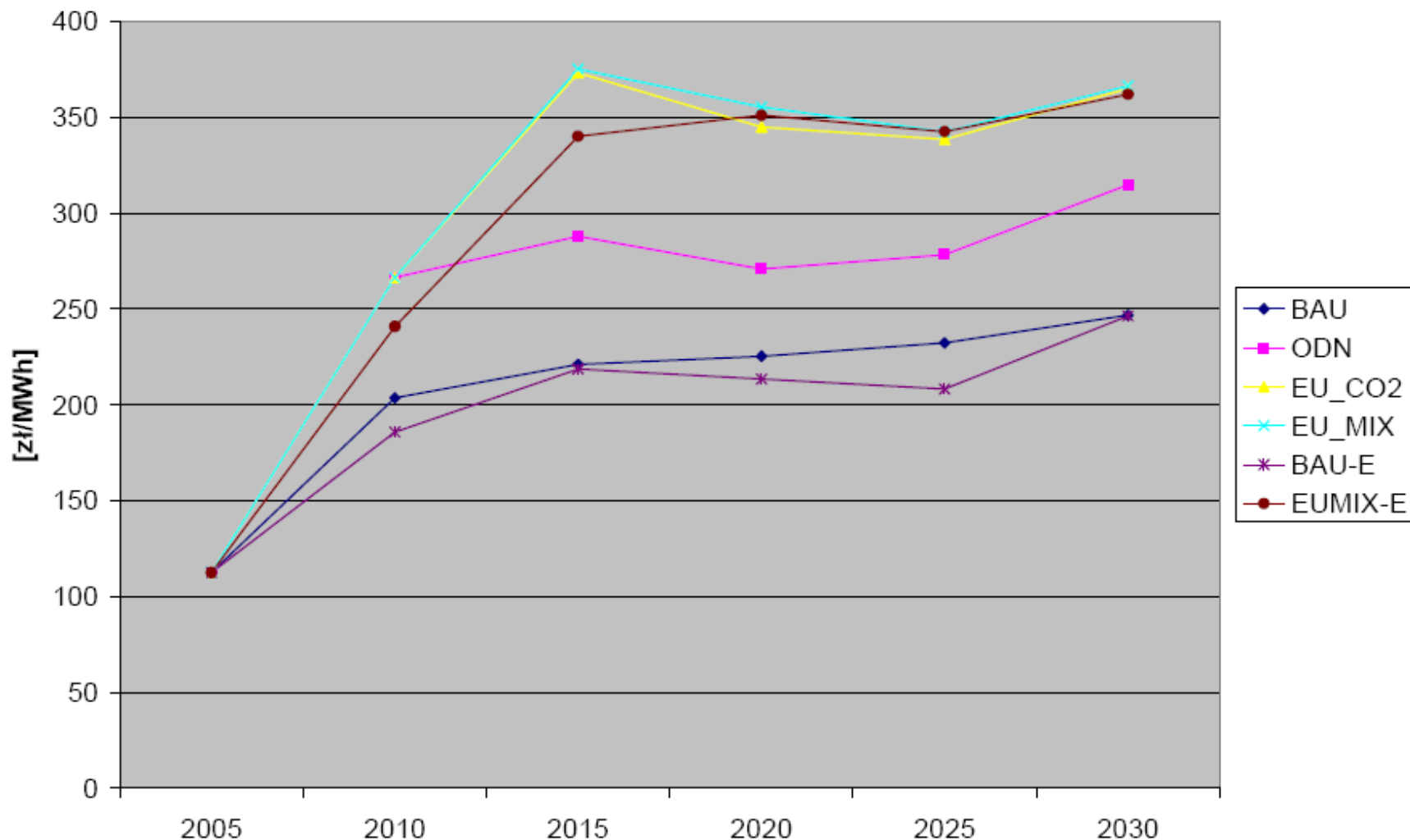


forecasted investments in energy production

base conditions

	Required investments in 2006 – 2030 (PLN)
<i>Continuation scenario</i>	
Energy plants (in total)	130 bln
Energy plants (Renewable energy sources)	38,9 bln
<i>EU-MIX scenario</i>	
Energy plants (in total)	248 bln
Energy plants (Renewable energy sources)	101 bln

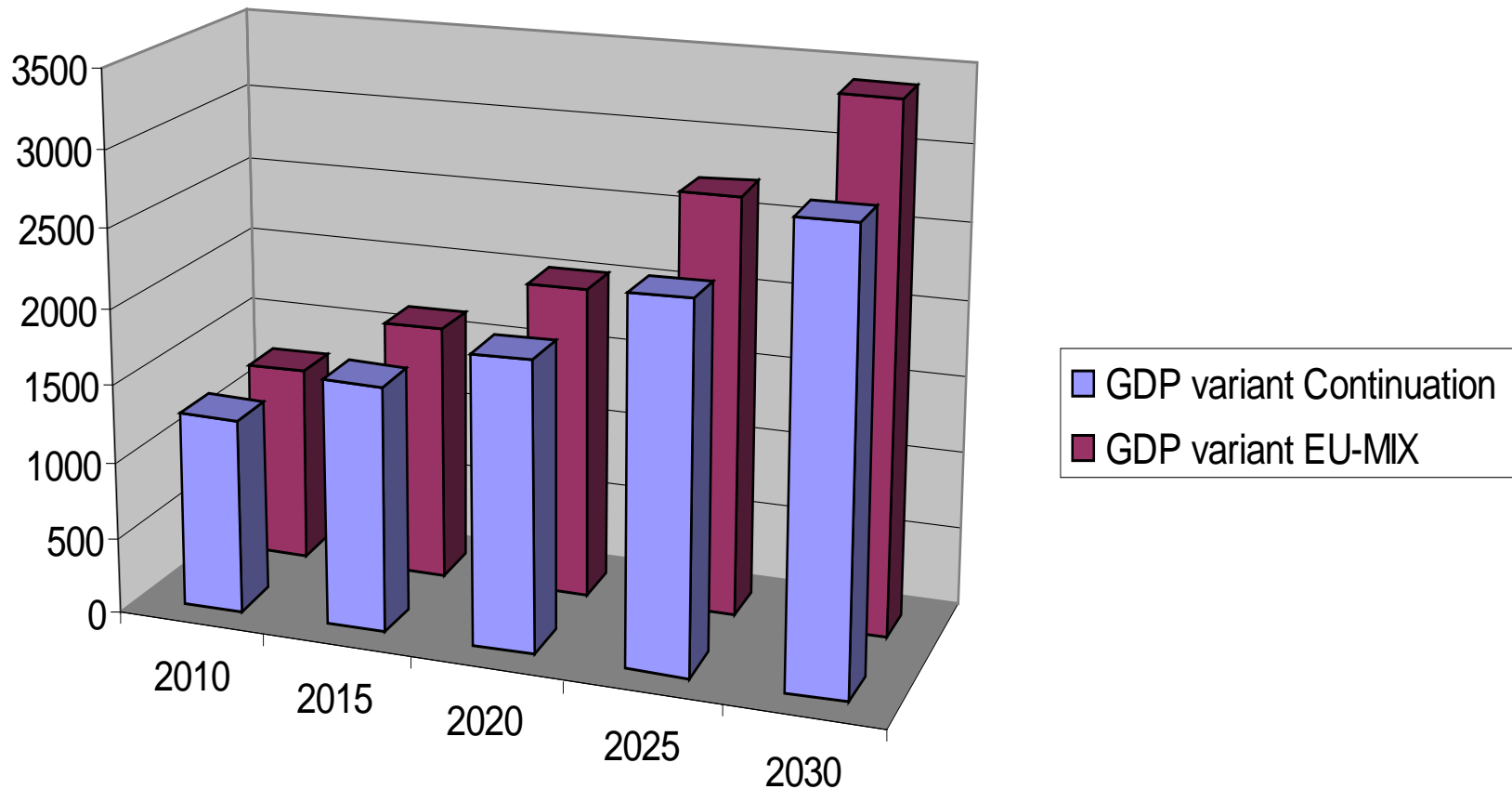
forecasted costs of energy production



RYS. V. Krzywa kosztów marginalnych wytwarzania energii elektrycznej

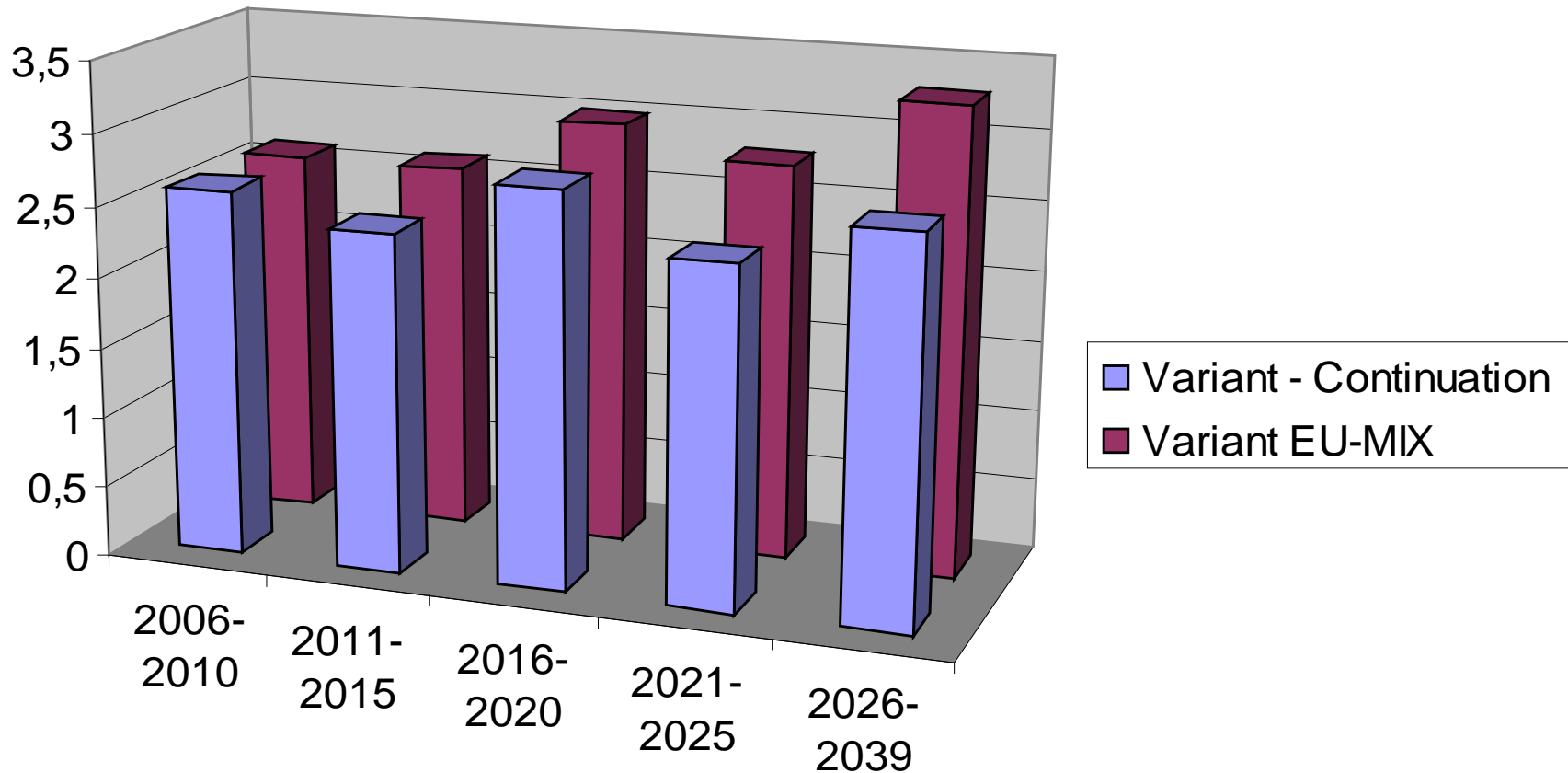
Forecasted GDP in BAU and EU-MIX variants

Forecasted GDP growth scenarios



Expected inflation rate in Variant BAU and EUMIX

Forecasted inflation rate - scenarios



Conclusions:

- ◆ direct costs connected with adjusting the technological infrastructure to the new EU objectives
- ◆ difference in energy costs (compared to BAU) 60%
- ◆ indirect costs expressed in GDP – 2020 154 mld PLN and 503 mld PLN in 2030
- ◆ households decreased relative disposable income 10%
- ◆ increase in energy costs share in households budgets from 11% in 2005 to 14,4% EU-MIX (12,9% - BAU)



Thank you for your attention

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