Conference
Why is electricity more expensive
Prague, 15/05/2013

Panel1: How is electricity price determined Polish case – introduction

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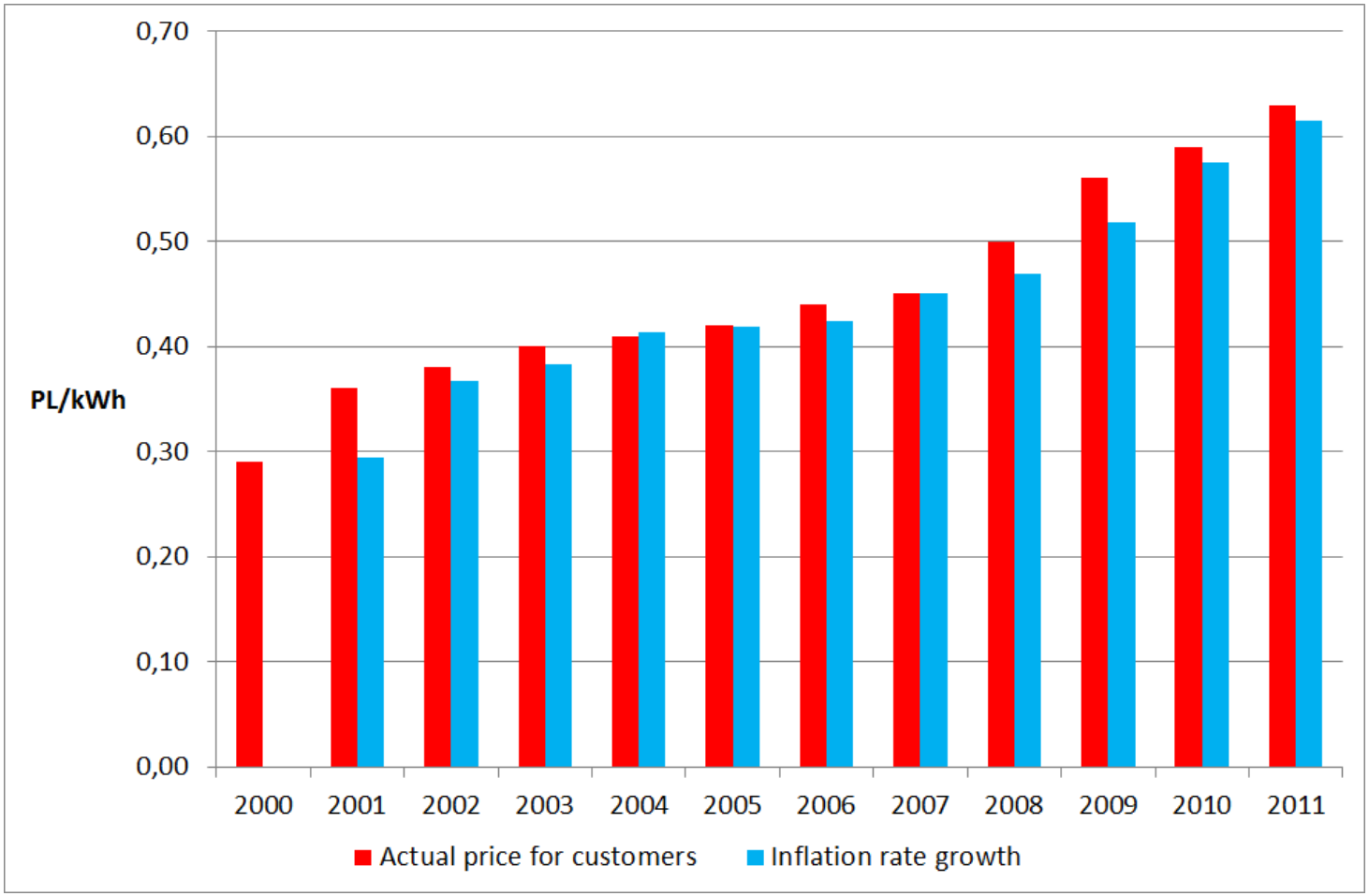
General remark:

- Lack of transparency of the pricing system
- Inconsistenies between available sources of information (like GUS, URE, ARE)
- Trends and structure (shares) are recognised, but specific values are different for different sources of information

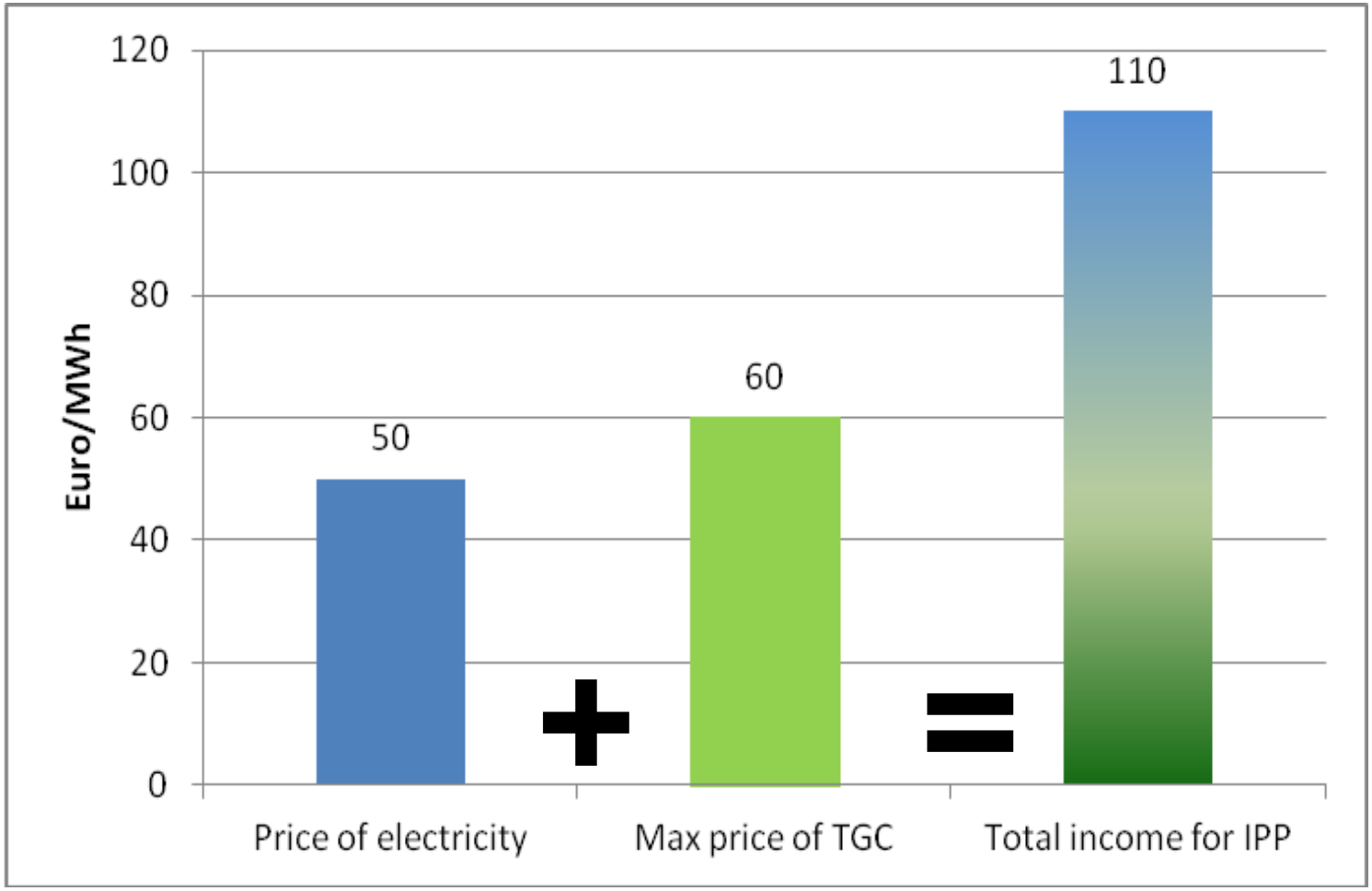
Average electricity priices for households in Poland, G11 tariff, source: Main Statistical Office



➲ **prices growth exceeding inflation rate**

➲ **the growth of expenditures for electricity – significantly larger for farmers households**

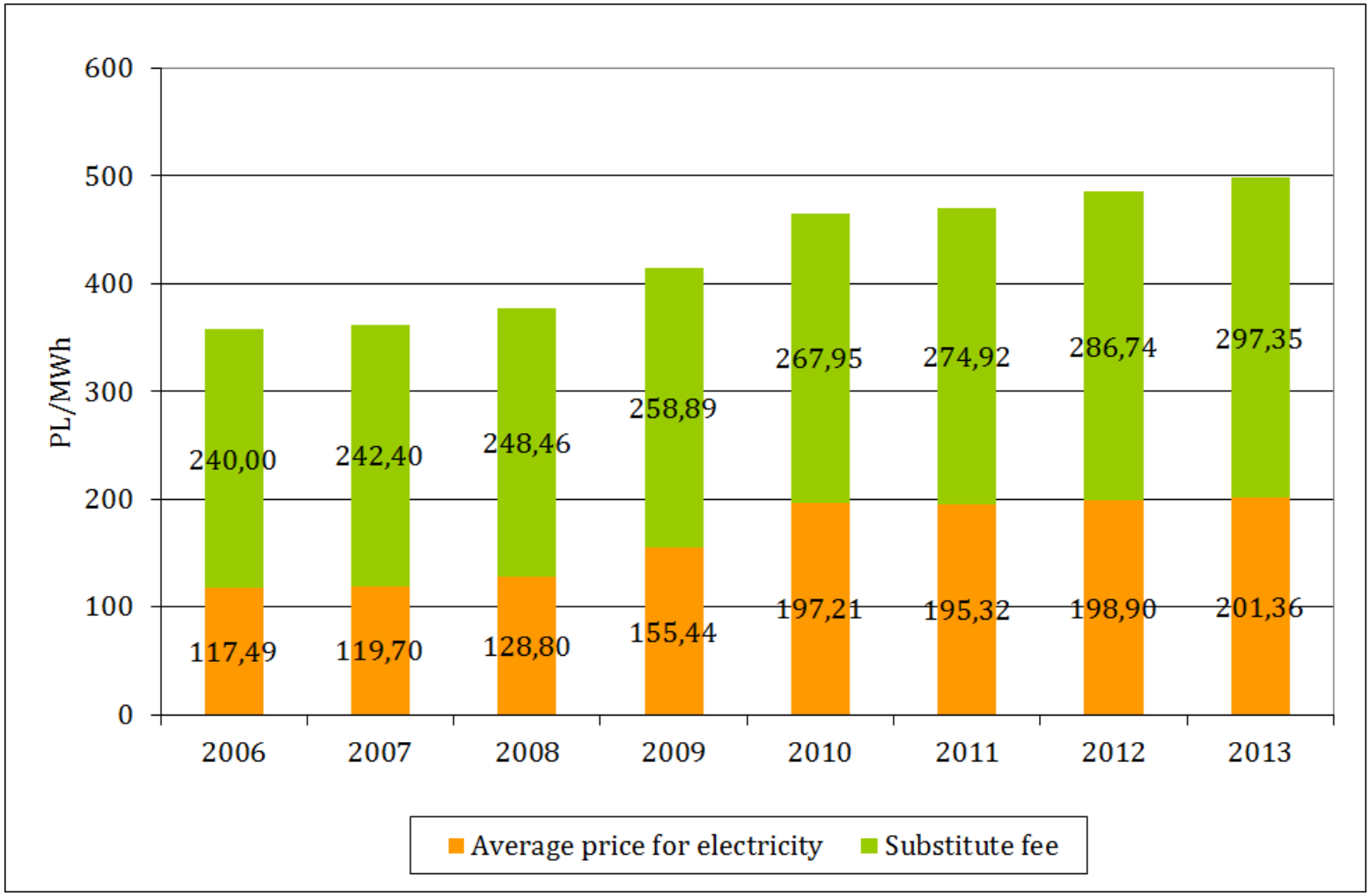
Nominal income for RES installation owner (if no TGC's oversupply)



➲ **tradable green certificates system (market operator – Polish Power Exchange)**

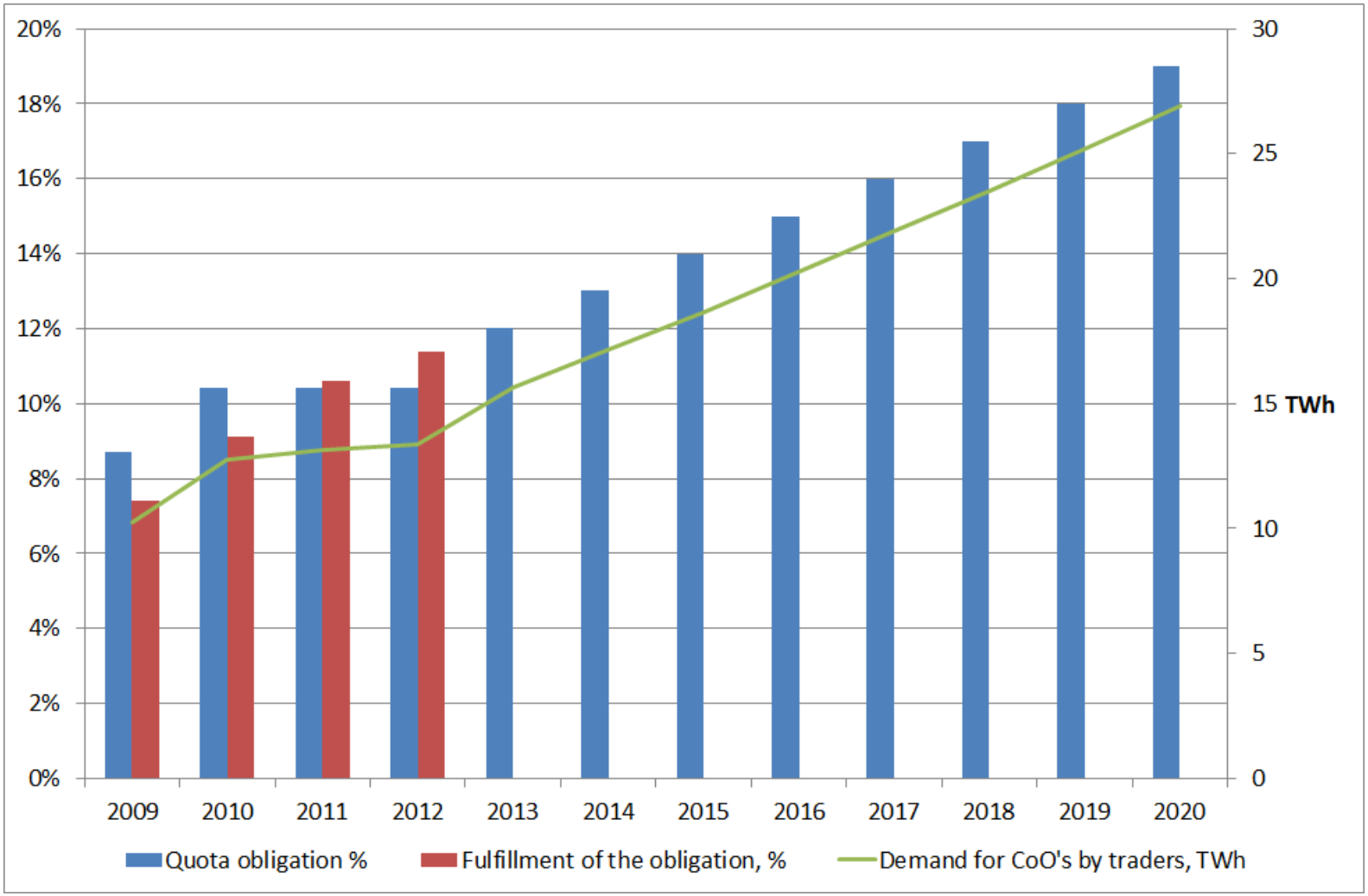
➲ **TGC (certificate of origin) issued by the regulator for concessioned RES energy supplier**

How much the support system for RES-E in Poland cost – historical nominal price tendencies



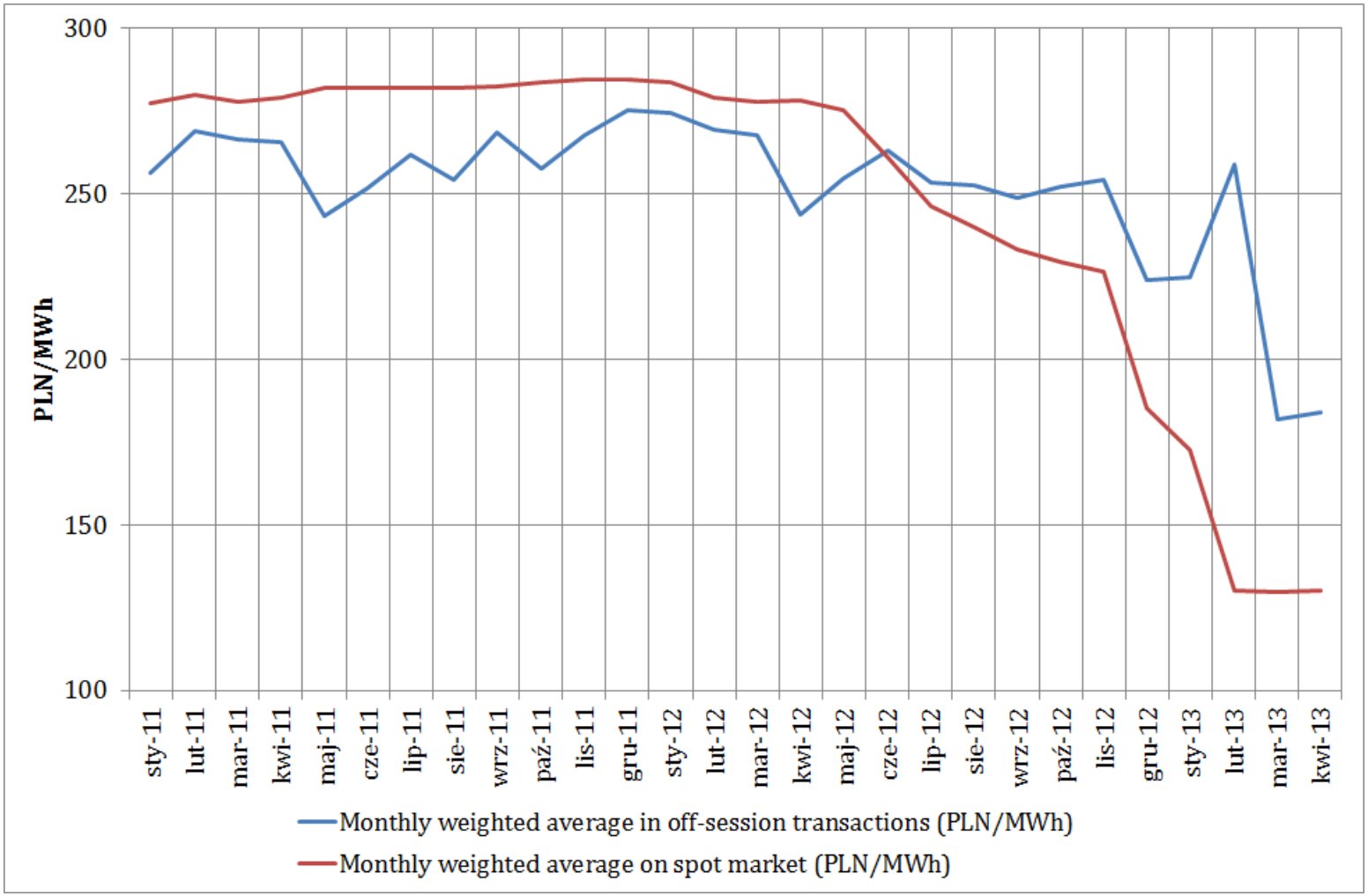
➲ **growth of wholesale electricity prices lower than expected**

How much the support system for RES-E in Poland costs? – quota obligation; source of data about obligation fullfillment: URE



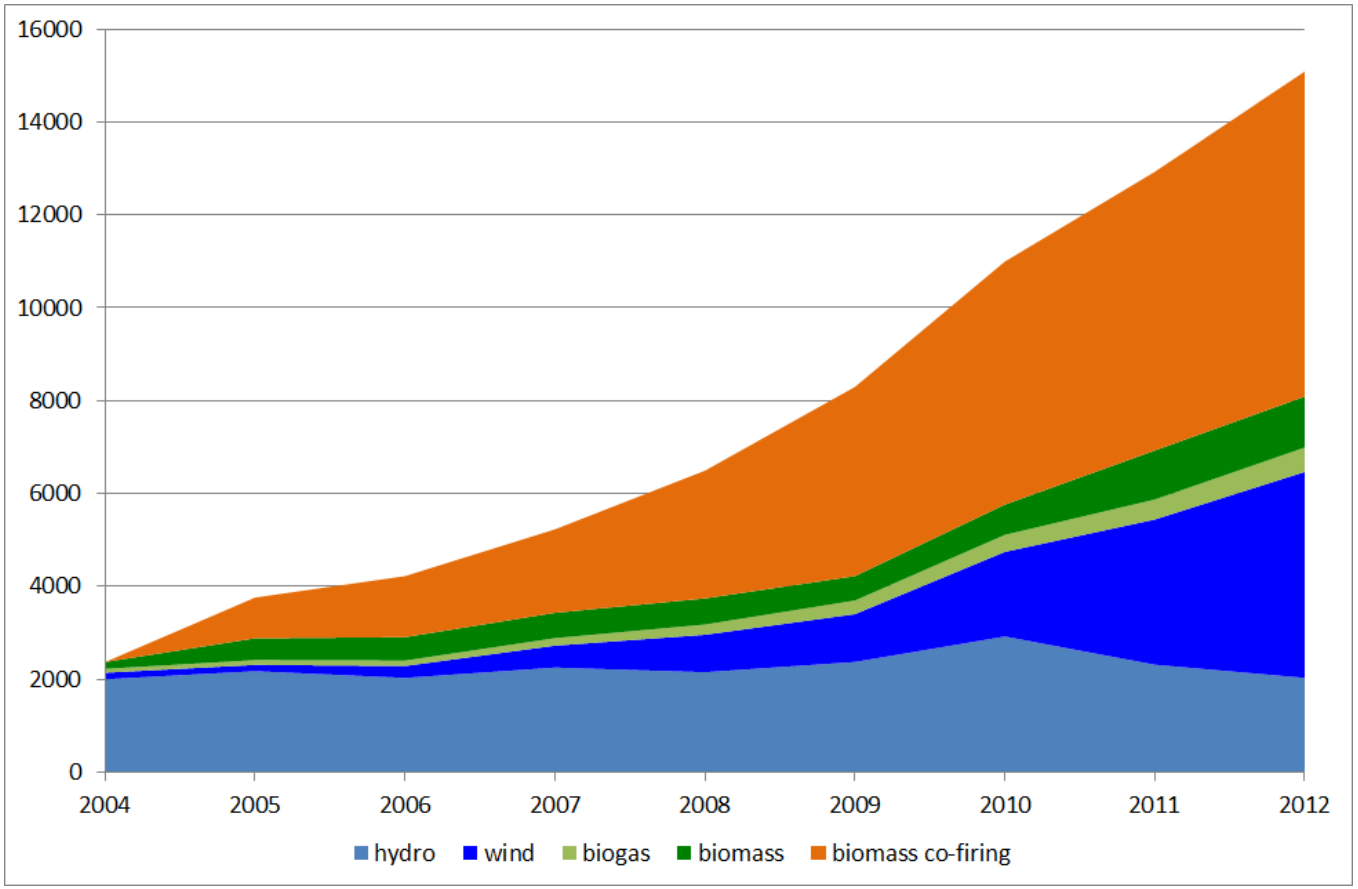
- obliged entities – companies trading electricity to endusers
- lack of warrancy for CoO's sale + no expiration date for CoO's

Consequences for the spot market
Source: Polish Power Exchange



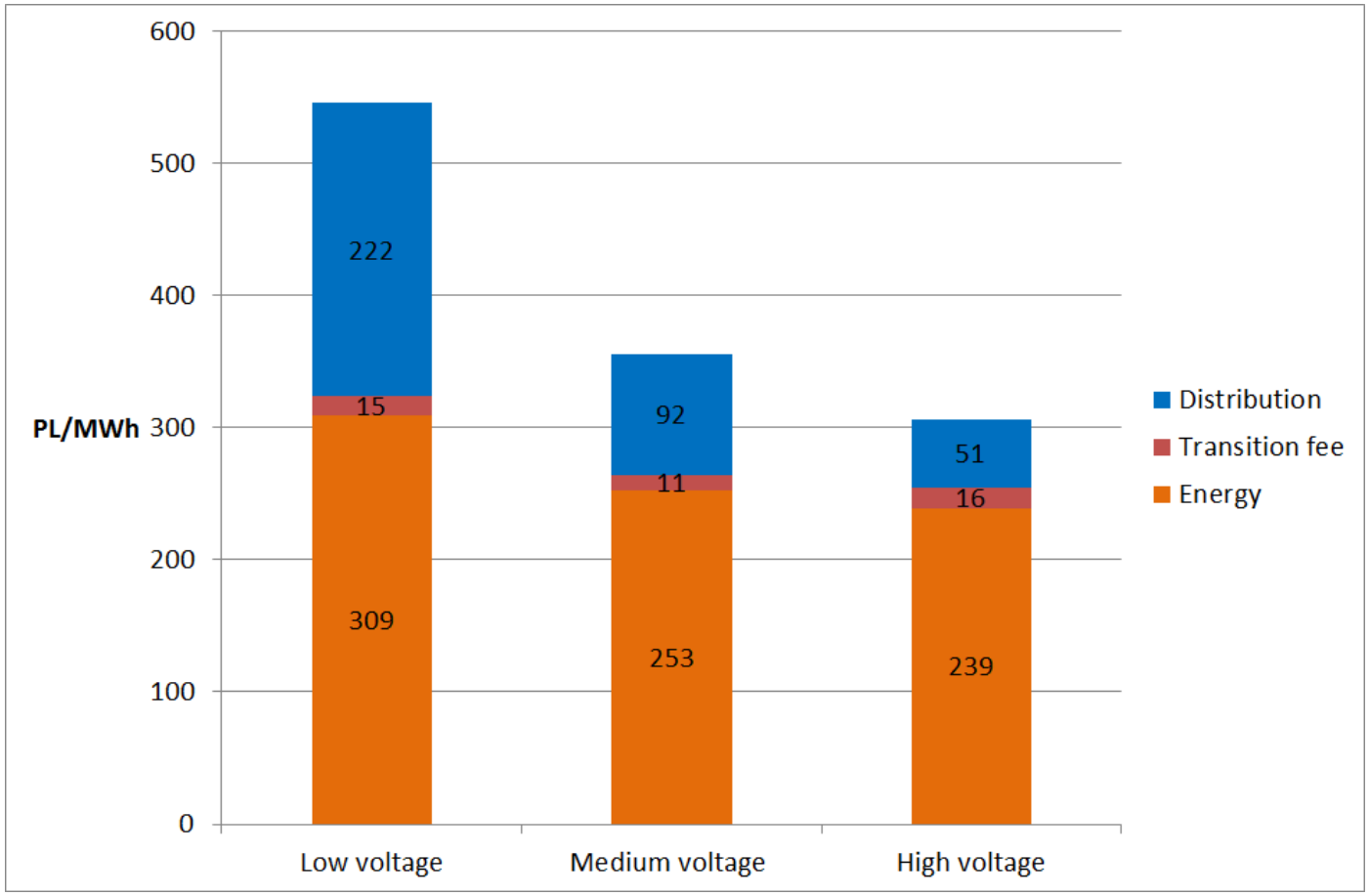
➲ **2012 – 82% OTC deals, until April 2012 – 90%**

Who profits?
Source: URE, IEO estimate for co-firing



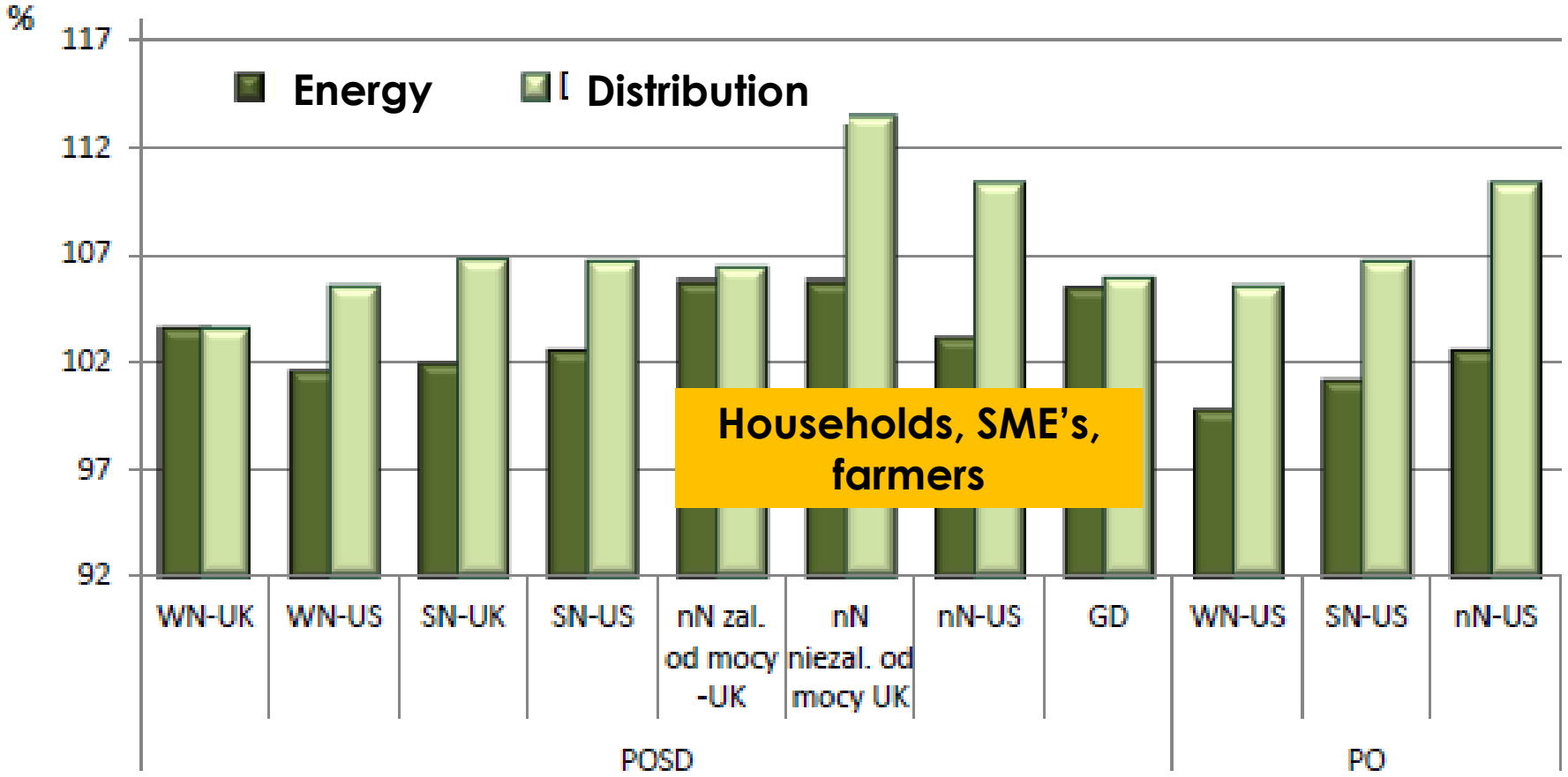
- cost of the support system 2005-2012 – 42% biomass co-firing, 31% hydro
- 2005-2012 estimated 5,3 bln PL'2005 for co-firing power plants

The structure of electricity prices (without taxes) Source:ARE



➲ **growth 8-12% for low voltage (household), 1-4% for medium voltage (SME), 1-2% for high voltage**

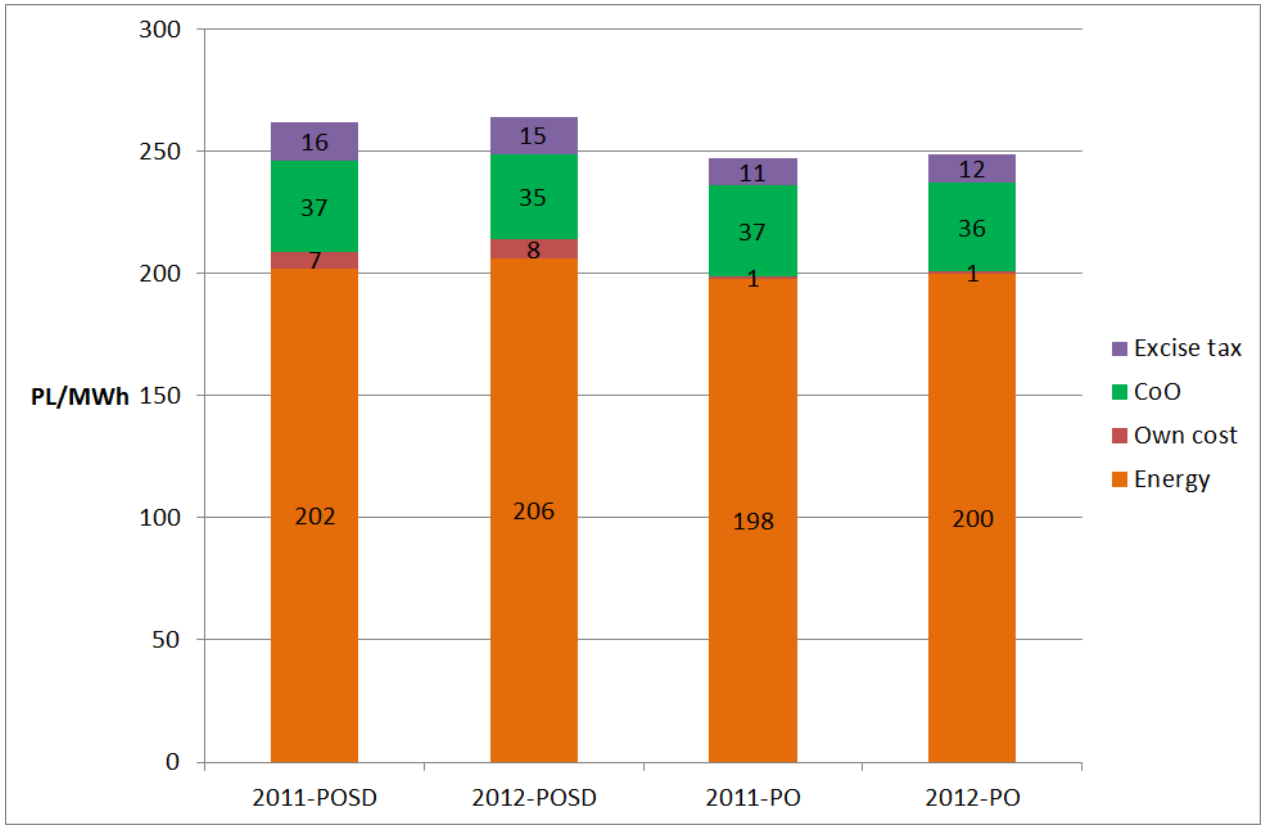
The dynamics of energy prices and distribution cost for groups of endusers Source:ARE



➲ mostly own cost of DSO's growth (outsorcing of services and depreciation) and transmission fees

➲ balancing cost remains stable, on the level of 13% of total distribution cost

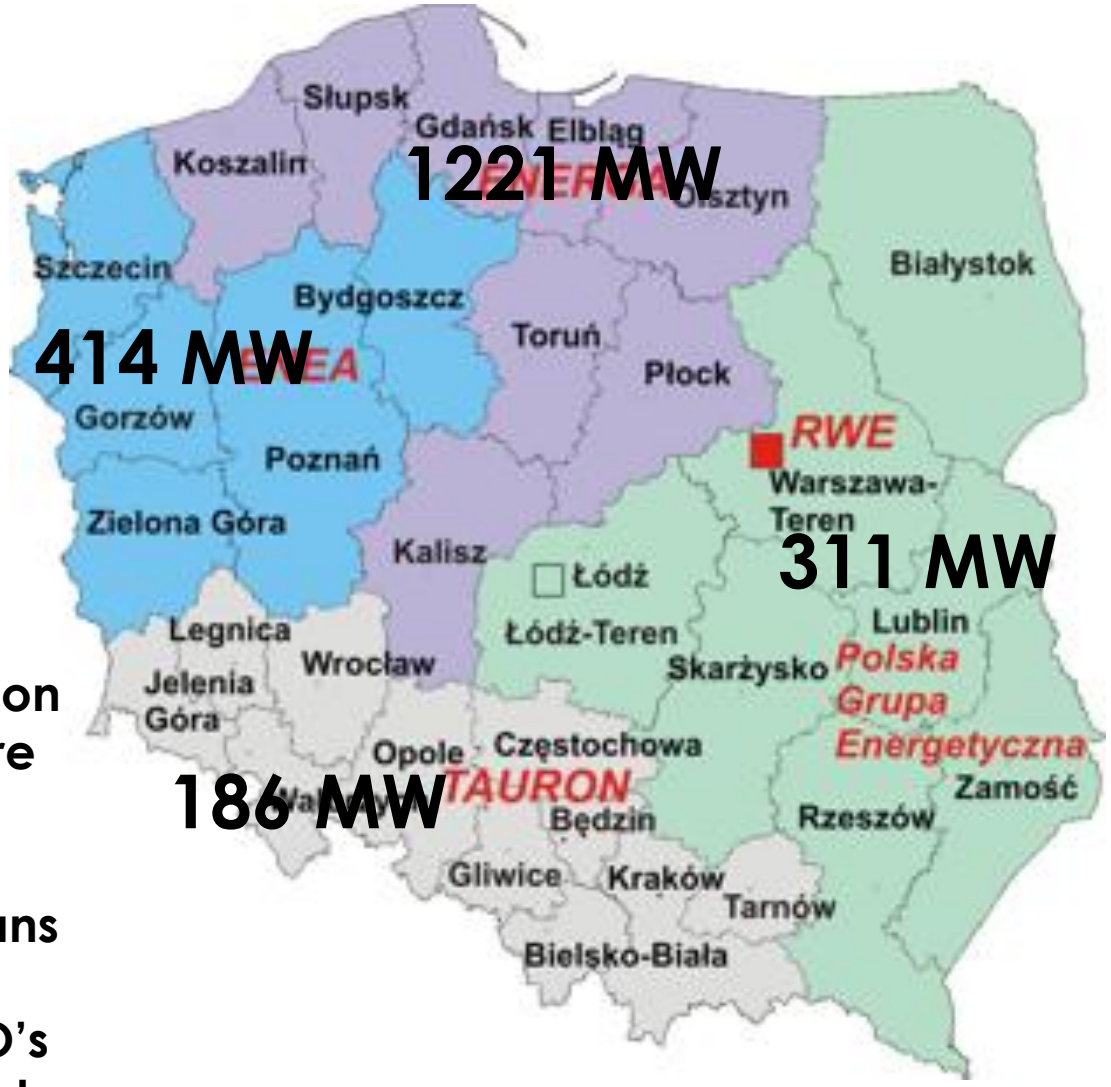
The level of energy cost included in the prices for endusers, for „old" traders (POSD) and „newcommers" (PO) Source:ARE



Total cost of CoO's, green and red, is now 5-7% of the electricity bill of enduser and 12-13% of energy cost

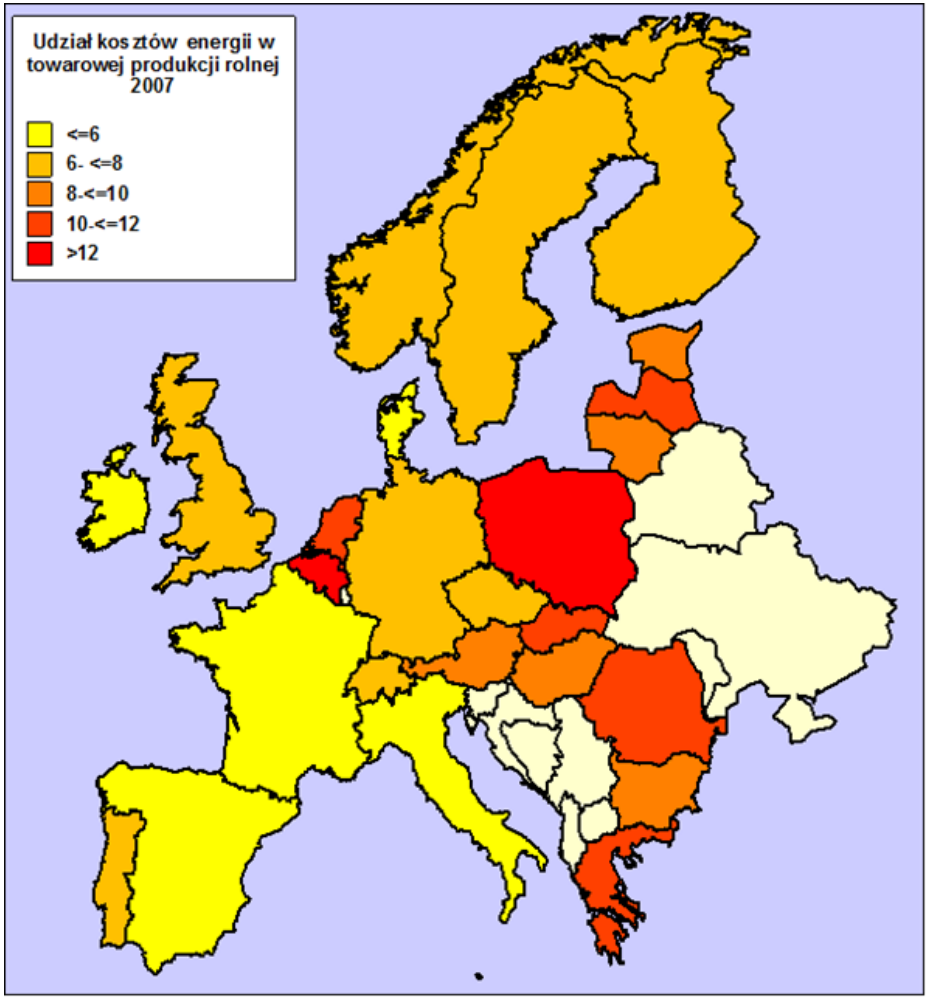
- **16,5 Mio of POSD clients, only 1500 clients of PO…**
- **In fact, the growth of prices caused only by the increase of wholesale energy prices**
- **Drop down of cost of CoO's (green and red)**

Irregular distribution of RES-E – differences in distribution cost in specific regions; Source: Energa Operator



➲ Consumers on some areas are charged with larger distribution/transmission fee, including DSO's grid investment

Share of energy cost in the agricultural market output, 2007
Source: IEO based on Eurostat



Opportunity for prosumers

- For the moment only 1600 concessioned entities, 10% of them generating 90% of RES electricity; additionally some off-grid installations (compared to 4 Mio RES owners in Germany)
- The small generation – opportunity to reduce distribution cost and generate green energy for own purposes
- The roadmap for small scale energy technologies – economic potential of over 600 000 prosumers owned micro-installations to generate RES-E in Poland (mostly wind and PV)
- 9% of Polish RES-E scenario from National Renewable Energy Action Plan could be fulfilled by small scale prosumers installation

For the moment, according to energy sector analyses, the main factor influencing energy prices growth in Poland is not support system for renewables, but transmission/distribution cost , own cost of the traders, and energy cost on wholesale market

Thank you for the attention!
For more information visit www.ieo.pl

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