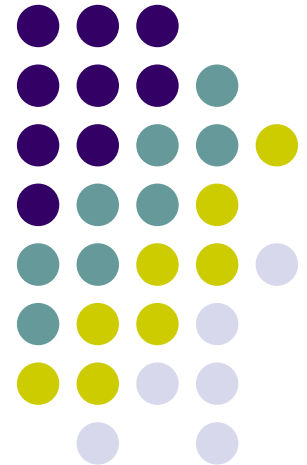


Cost-benefit dimensions of energy efficiency in buildings in EECCA and SEE countries



69th Committee on Housing and Land Management – 22-23 September 2008
Presentation prepared by the secretariat



The energy efficiency gap



- Investment in energy efficiency is significantly lower than what is considered cost-effective.
- What causes this paradox and how can we address it?



Causes: Market failures

Barriers I: technology transfer, trade and investment.

Barriers II: awareness of the problem and of the range and feasibility of solutions.

Conflicts of interest (policy required)

- Construction Vs operation
- Utilities Vs operation
- Ownership Vs operation

Costs & Benefits



- Costs: materials, labour, training.
- Benefits – *Narrow*: savings in energy use and therefore in energy costs savings.
- Benefits – *Broad*: Health and quality of life dividends, higher productivity.
- Energy-saving Vs comfort-increasing options.

Costs & Benefits: payback times



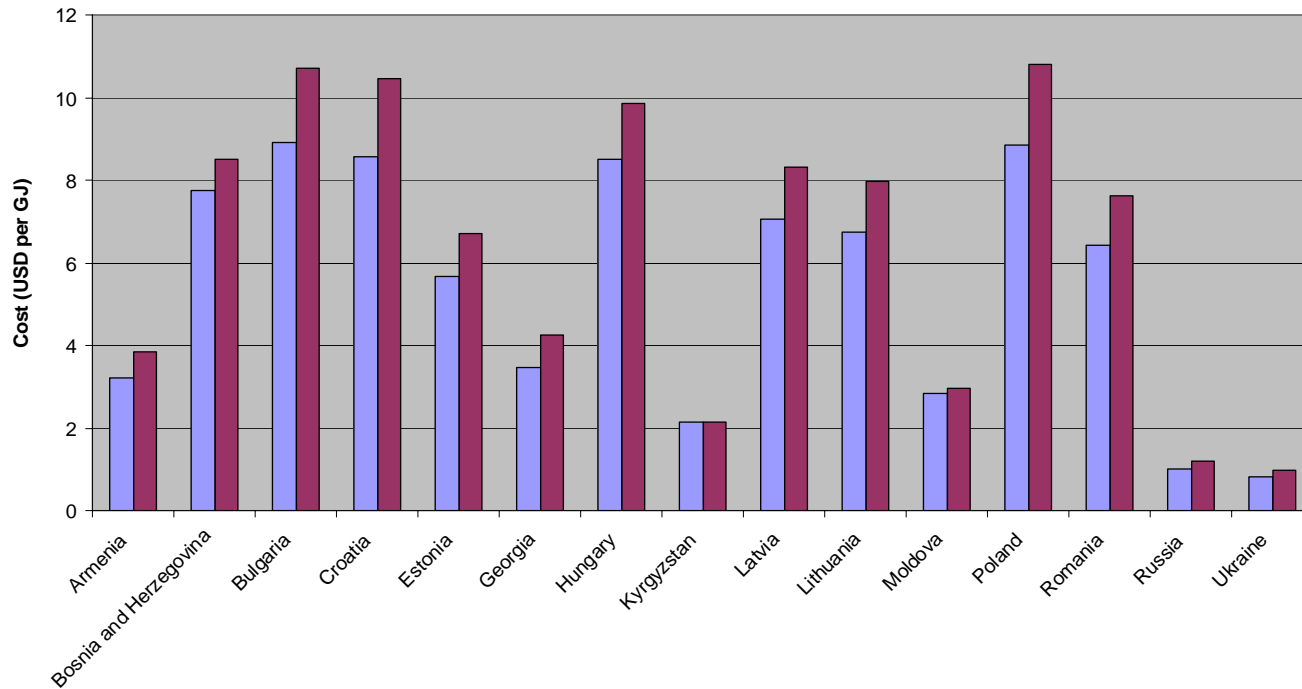
- Key: Cost of energy

Low cost of energy (e.g. because of subsidies) prolongs payback period therefore may render projects less (or un-) profitable.

Key: cost of energy



Cost of residential natural gas in select EECCA and SEE countries for 2005



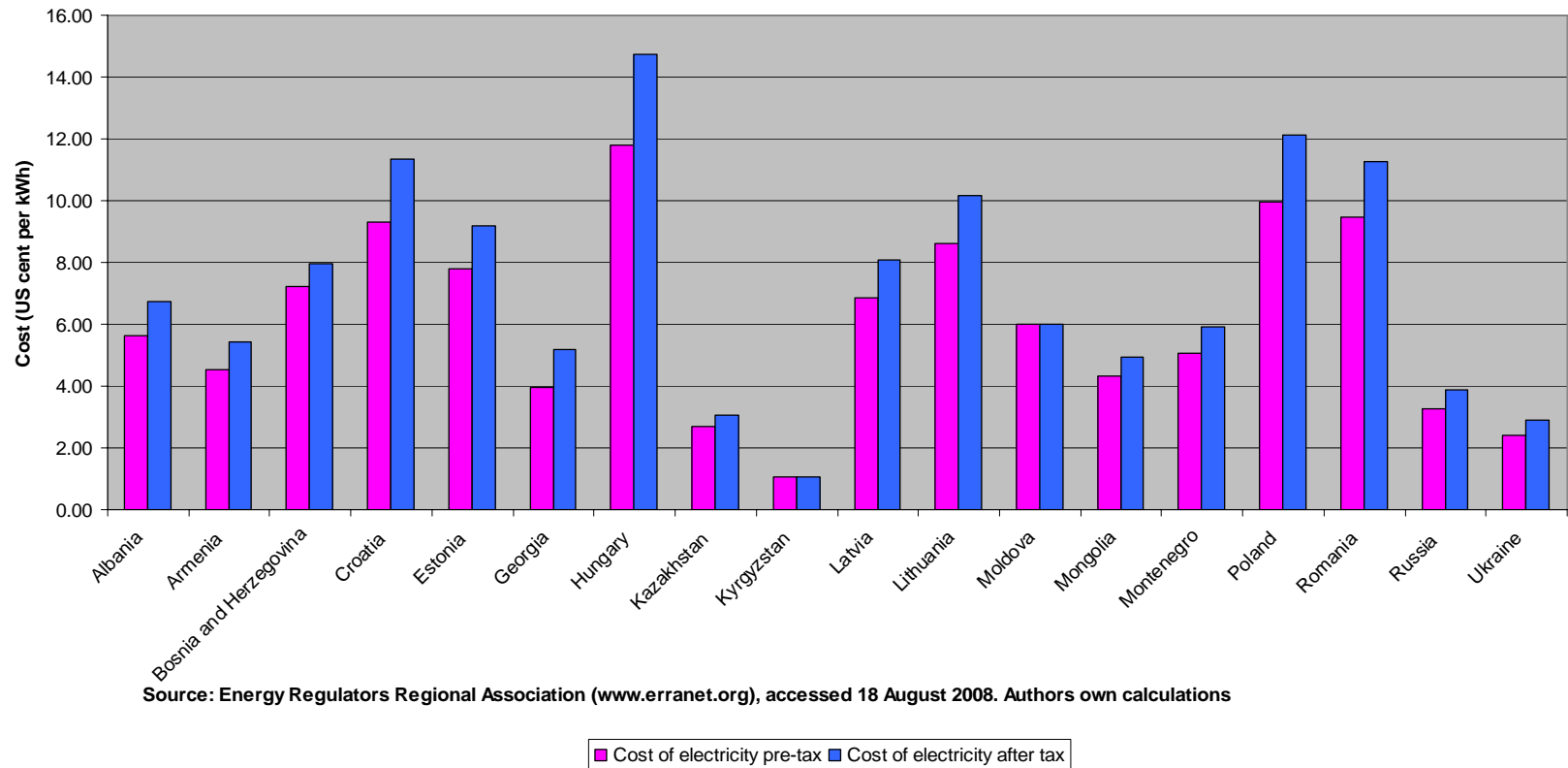
Source: Energy Regulators Regional Association (www.erranet.org), accessed 18 August 2008. Authors own calculations

■ Yearly Average without tax ■ Yearly Average with tax

Key: cost of energy (electricity)



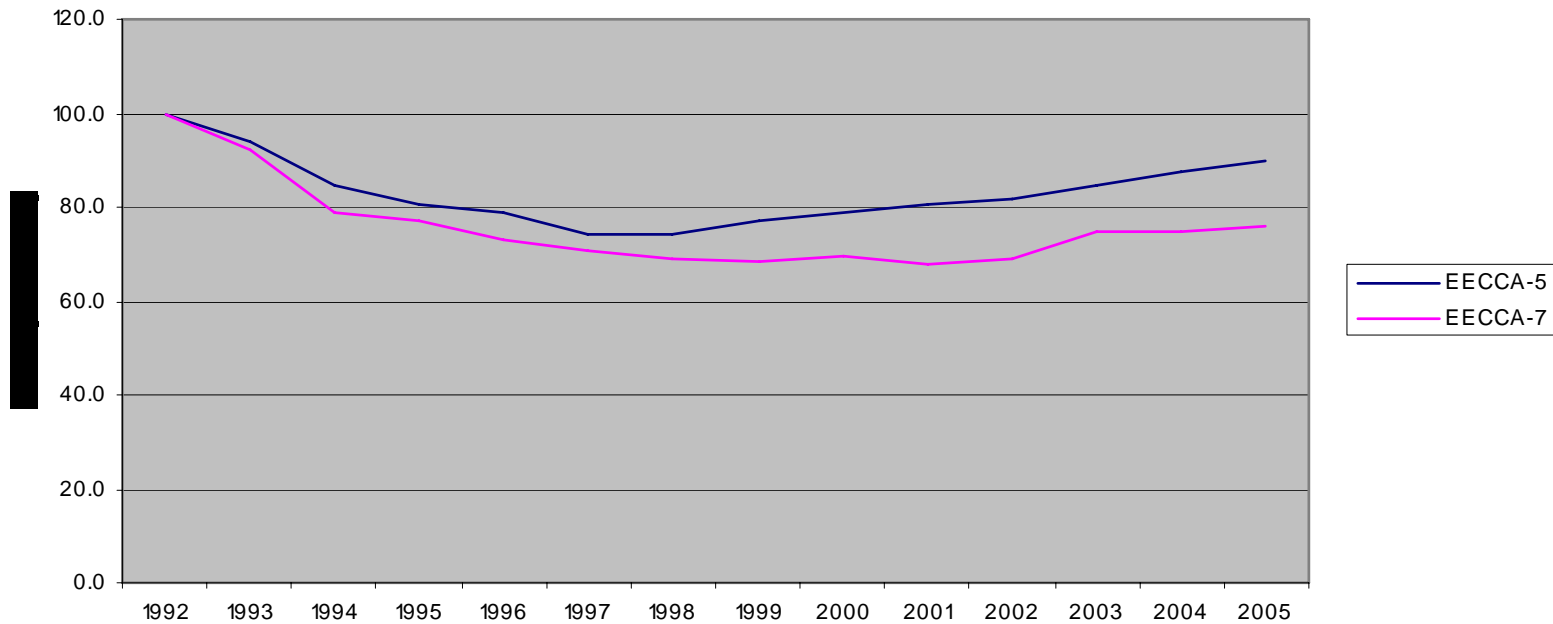
Cost of residential electricity in select EECCA and SEE countries - 2005



Per capita energy consumption in EECCA countries



Per capita energy consumption in oil/gas producing and non-producing EECCA countries

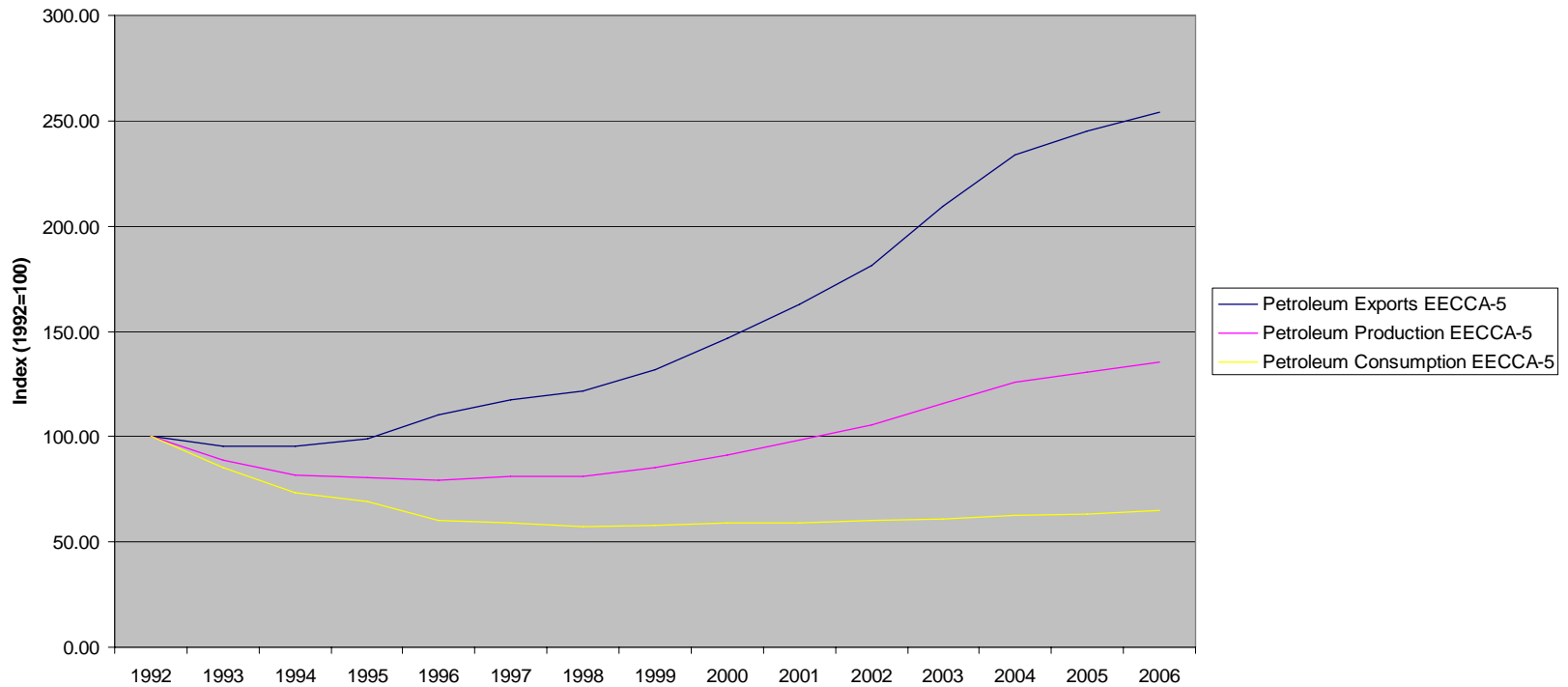


Source: Energy Information Administration (<http://www.eia.doe.gov/>), accessed 18 August 2008. Author's own calculations

Petroleum – EECCA-5



Petroleum - EECCA-5



Source: Energy Information Administration (<http://www.eia.doe.gov/>), accessed 18 August 2008.
Author's own calculations.

Conclusions



- The consensus in the economic and policy literature is that undertaking energy efficiency measures is cost-effective.
- Solutions need to be tailored to country-specific needs, not one-size-fits-all.
- More accurate and systematic data is needed to enable in-depth cost-benefit analysis.
- Key: identifying cost-effective ways of collecting and analysing information, e.g. through CHLM's housing reviews.