IEPPEC CONFERENCE

"MAKE THE PARIS AGREEMENT A REALITY WITH EFFECTIVE EVALUATION FOR ENERGY EFFICIENCY"

PANEL: COST EFFECTIVENESS OF ENERGY SAVINGS

Cost-effective Energy Savings Potentials in EU Countries

Wolfgang Eichhammer
Fraunhofer Institute for Systems and Innovation Research ISI
and
Utrecht University

Utrecht University

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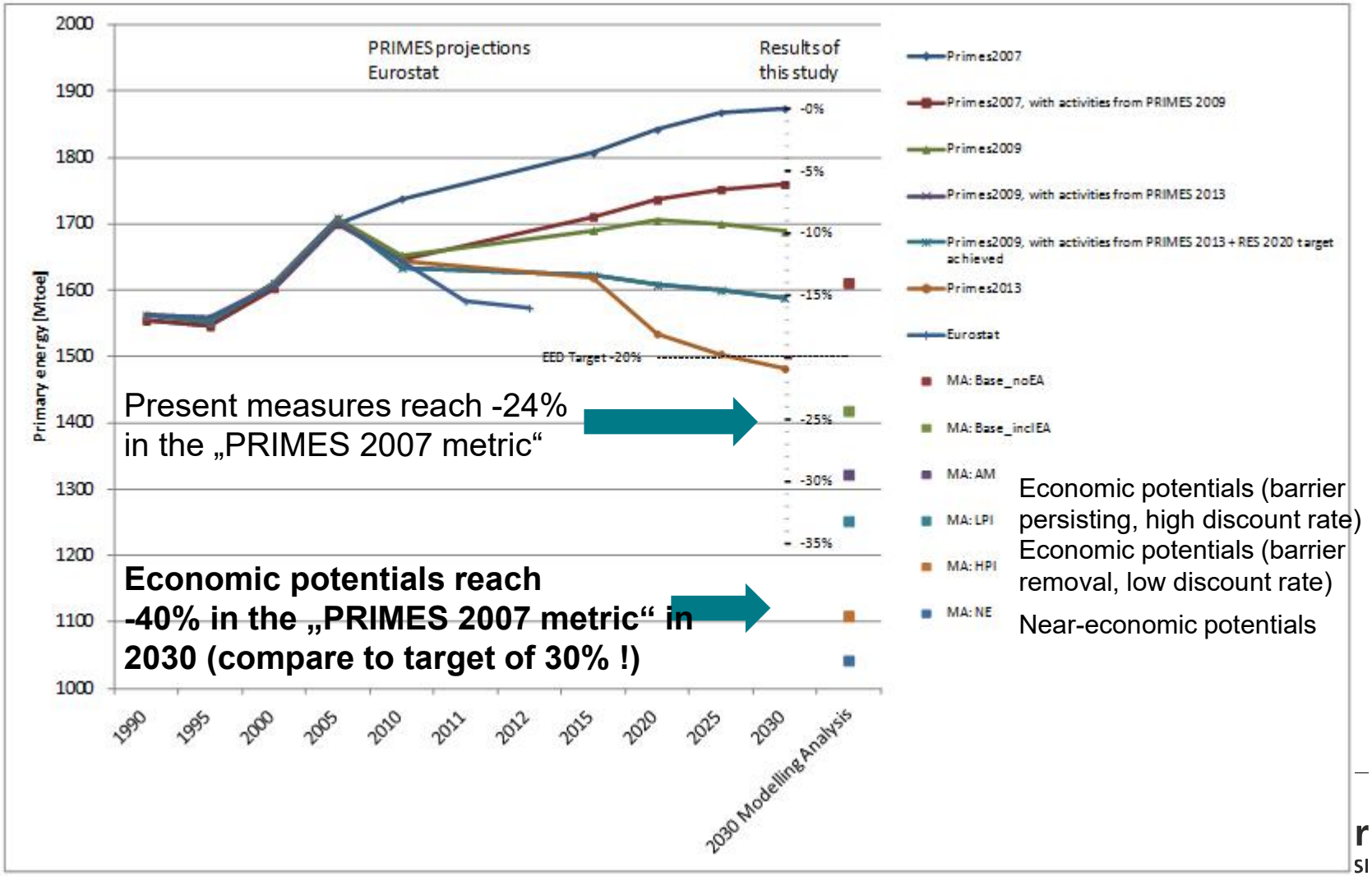
The PRIMES 2007-metric for energy efficiency and economic Energy Efficiency potentials



Discount rate debate…

- The discount rates used in energy system modelling contain more components they should (separate barrier related parts from investment-related parts). Implement the first with separate model mechanisms
- Important to improve on empirical evidence
  - BRISKEE project (H2020): enquiry in 10 countries (1000 households) on non-economic barriers, in particular risk and time preferences
  - CHEETAH project (2020): Impact of policies on non-economic barriers (examples: energy labels; energy saving tenders with „aggregators“)
- **Energy efficiency policy is largely able to impact on (non-economic) barriers**

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Underestimate of cost degression...

- Cost-efficiency is largely influenced by assumption on cost-degression.
- Important to improve on empirical evidence cost degression for discount rates (some studies in the past, e.g. on cost degression of efficient windows and insolation materials; efficient motors)
- Examples in the past have shown that **for many mass products there is only a temporary extra investment while with market penetration costs come back to previous levels**:
  - Household appliances (label and eco-design standards)
  - CO_2-efficient cars
  - More difficult: efficient housing -> possibilities to standardize procedures for insulation or is every house an individuum?

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Dynamics over time…

- Static cost-efficiency is a **„bad advisor“**:
  - Only cheapest options are selected. This can lead to path dependencies („shallow insulations under UK energy saving obligations)
  - The earlier we start to gain experience the more we will have chances to learn and innovate. There are (biased) uncertainties in our cost estimates that have tendency to overestimate the real costs!
- One should also include „near economic options“ at least, i.e. which are not making the energy system more expensive.
- In a 2050 perpective we need most options (including some which are more expensive today). Therefore we must take a 2050 view in deciding whether (additional) costs are acceptable. **We have accepted that for renewables already!**

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Thank you very much!

Wolfgang EICHHAMMER

Head Competence Centre Energy Policy and Energy Markets
Fraunhofer Institute for Systems and Innovation Research ISI
and Utrecht University

Breslauer Strasse 48 | 76139 Karlsruhe | Germany

Phone +49 721 6809-158 | Fax +49 721 6809-272
mailto: wolfgang.eichhammer@isi.fraunhofer.de
http://www.isi.fraunhofer.de

Utrecht University

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