Institute for European Environmental Policy

Addressing fuel poverty:

Integrating climate change mitigation and social policy objectives

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Integrating different areas of policy

- Long-standing concern with integration of environmental concerns into other policy domains.
- Debate about an integration of the concerns of other policy domains into the environmental policy domain less developed.
- Not new: iteration of the debate about the relationship between the three pillars of sustainable development.
- Two dimension dimensions to the emerging debate.
  - Concern to **compensate for any anticipated negative consequences** of climate change mitigation policies and measures on particular social groups. E.g. in France, attempts are being made to avoid the regressive effects of a carbon tax by putting compensatory measures in place.
  - Increasing attention is being paid to the potential **co-benefits** of climate change mitigation policies in particular in the area of energy efficiency. E.g. health benefits of well-insulated buildings.
- However, what we have so far not seen is an attempt to more systematically and creatively identify **synergies** between policy domains. Perhaps the debate about the three pillars of sustainable development has been too often phrased in terms of *trade-offs* and much less in terms of win-win opportunities.

What is fuel poverty?

- Concern about fuel poverty grew out of the energy crisis in the 1970s (e.g. Wicks 1976; Boardman 1991)
- Broadly: the inability to meet energy service needs in the home at an affordable cost.
- Some definitions include all energy services (e.g. Boardman 2009) others limit reference to heating services (CEODHAS; UK Government).
- UK Government definition:
  - “Fuel poverty means being unable to afford to keep warm. …a household [is] in fuel poverty if it needs to spend more than 10 percent of its income on fuel for adequate heating (usually 21 degrees for the main living area, and 18 degrees for other occupied rooms). »
- Causes of fuel poverty:
  - poor energy efficiency in the home
  - high energy prices
  - low household income

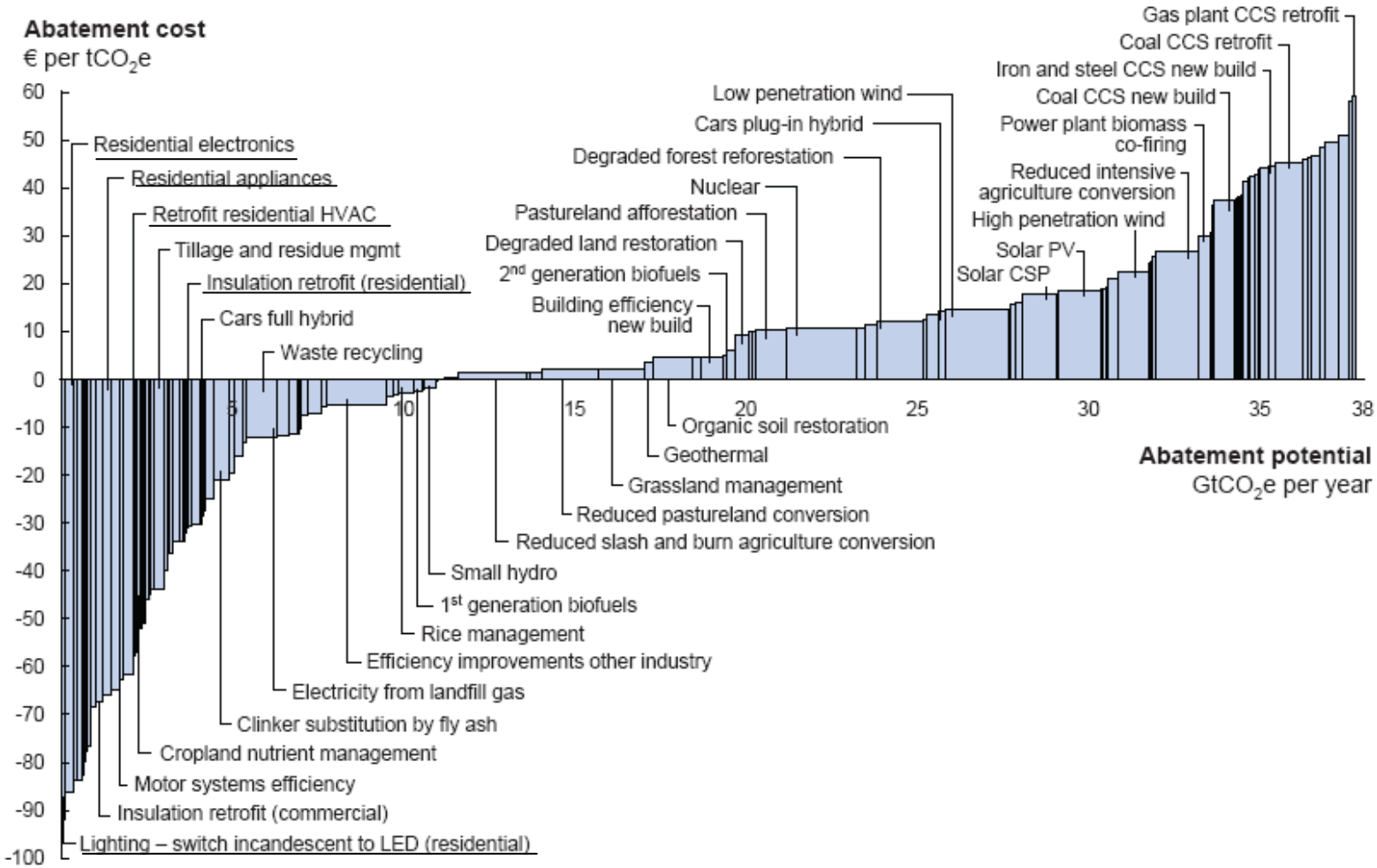
Why should you be interested?

- Fuel poverty is a significant social problem in the EU:
  - Ceodhas: 10s of millions of people affected by fuel poverty in the EU. Boardman (2007) 15% of UK households in 2007.
  - Living in cold homes can damage people's health and affect their quality of life. The elderly, children, and those with a disability or long-term illness are especially vulnerable (UK Government).
- Increasing political attention is being paid to fuel poverty:
  - UK Fuel Poverty Strategy from 2001 "eradicate" fuel poverty by 2016/2018.
  - Increasing interest in other MSs (e.g. "precarité energitique" in France and Belgium).
  - Two SAVE/Intelligent Energy Europe projects on fuel poverty. APEEL and EPEE (2007-2009). France, Italy, United Kingdom, Spain, Belgium.
  - Electricity Directive 2009/72/EC
    - recognises energy poverty as a growing problem in the Community and requires MSs to:
    - define "vulnerable customers" – this "may" refer to energy poverty
    - **"take appropriate measures** such as…national energy action plans, providing benefits in social security systems …., or providing for support for energy efficiency improvements, **to address energy poverty where identified**." (Art. 3 clause 8).
- Belgian presidency likely to take forward initiatives on fuel poverty.

What is the link with climate change?

- Climate change mitigation policies resulting in increased energy prices are likely to lead to an increase fuel poverty.
  - Has implication for the timing and combination of policies.
  - May require policy co-ordination between EU level and national level of governance.
- There is potential for synergy between adressing fuel poverty and climate change mitigation.
  - IPPC 4th AR: significant early and cost effective savings potential in the building stock
  - Much of this potential is in the residential sector.
  - Unlocking this potential is to a large extent a matter of retrofitting the existing building stock. Thus, a matter of capital expenditure
  - If targeted at fuel poor could have significant co-benefits directly by lifting households out of fuel poverty, and indirectly by improving the health of the population (Ceodhas 2009: for every €1 spent on energy efficiency, a reduction of €0.42 on health expenditure).

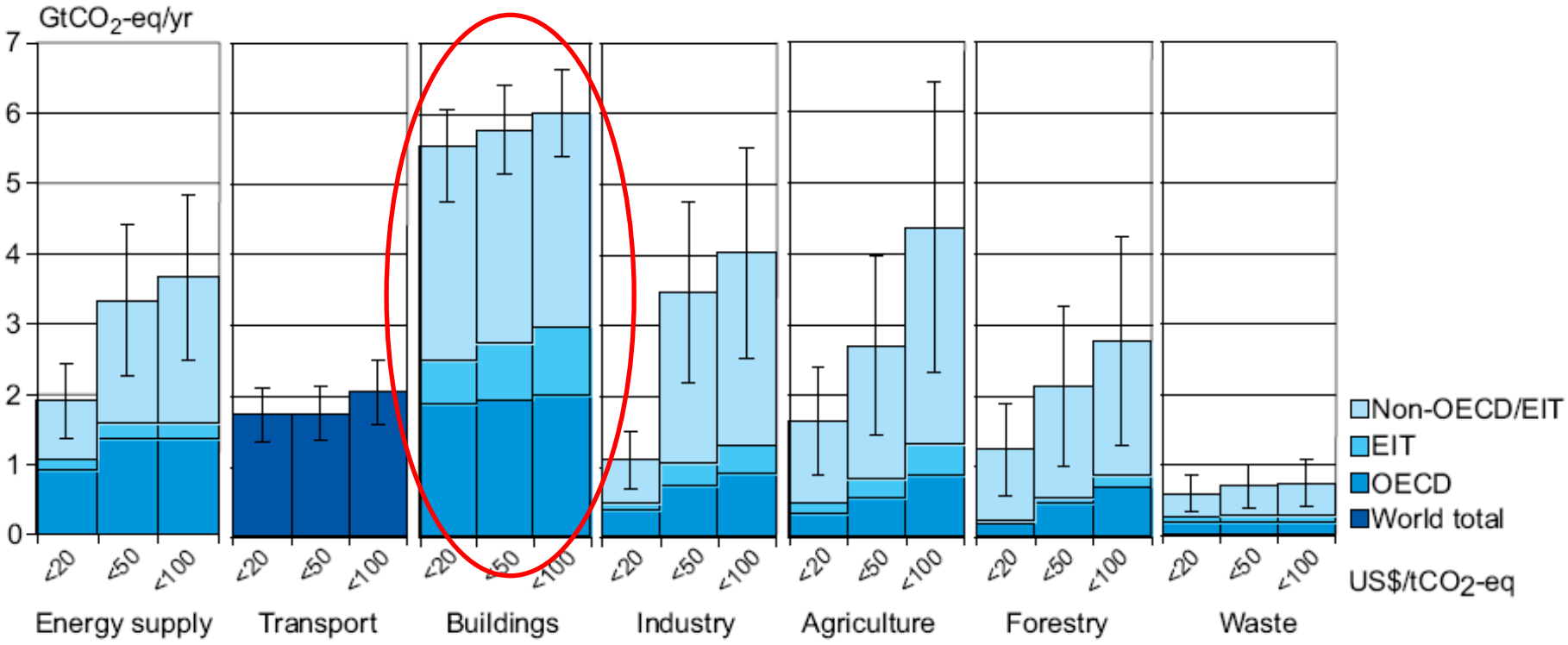
GHG abatement cost curve



Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below 60Euro per tCO2e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will pay.

Source: McKinsey, Pathway to a Low-Carbon Economy

Sectoral economic potential for global mitigation



(potential at <US$100/ tCO_2-eq: 2.4 - 4.7 Gt CO_2-eq/yr)	*(potential at <US$100/ tCO_2-eq: 1.6 - 2.5 Gt CO_2-eq/yr)*	*(potential at <US$100/ tCO_2-eq: 5.3 -6.7 Gt CO_2-eq/yr)*	*(potential at <US$100/ tCO_2-eq: 2.5 - 5.5 Gt CO_2-eq/yr)*	*(potential at <US$100/ tCO_2-eq: 2.3 -6.4 Gt CO_2-eq/yr)*	*(potential at <US$100/ tCO_2-eq: 1.3 - 4.2 Gt CO_2-eq/yr)*	*(potential at <US$100/ tCO_2-eq: 0.4 - 1 Gt CO_2-eq/yr)*

Source: IPCC AR4 WGIII Figure SMP6

Policy choices: fuel poverty and climate change

	COLD HOMES	WARM PLANET
Additional income (e.g. winter fuel payments)	✓	x
Fuel price rise (e.g. carbon tax, feed-in tariffs)	x	✓
Fuel price reduction (e.g. subsidising fuel price)	✓	x
Direct capital investment in energy efficiency	✓	✓

Adapted from Boardman 2007

Financing (I)

- Funds are likely to come from a mix of international, EU, national and sub-national levels of government and to consist of a mix of public and private sources of funding.
- End of 2008, the Commission set out its so-called Energy Efficiency Package, paying specific attention to the issue of financing. The package did not separate out buildings in particular. But not unreasonable to expect substantial part of any funding to go to buildings.
- Some of the existing EU-level funding include regional policy funding through the Cohesion and Structural Funds, the 7th Research Framework Programme and Intelligent Energy Europe.
- In a separate communication from the Commission to the European Council: *A European Recovery Plan* (adopted by Council in December 2008), quite a lot of attention was directed at various measures related to buildings, among them a € 1 billion public-private partnership to radically reduce energy consumption in buildings.

Financing (II)

- As part of the follow up to the Recovery Plan, the scope of eligibility under the European Regional Development Fund (ERDF) has been extended in order to support energy efficiency interventions in housing throughout Europe. The financial envelope that can be allocated is up to 8 billion € or 4% of the total ERDF allocation to the EU Member States (Ceodhas 2009b). To co-finance insulation works, installation of solar panels, replacement of substandard boilers…in existing housing stock in all EU regions.
- More recently a draft version of the revised Energy Efficiency Action Plan has been circulating in the press. According to press reports, the Commission will be proposing a European Building Initiative, supported by the European Investment Bank, which will aim to stimulate major renovation of 15 million buildings by 2020.
- It is desirable that substantial amounts of this funding is targeted towards addressing fuel poverty.

What about the rebound effect?

- Rebound effect: to the extent that energy efficiency improvements make energy services cheaper, some of the ‘savings’ may be taken as increased level of service.
- In the context of fuel poverty, some of the savings are likely to be taken as increased comfort.
- How much is very difficult to predict. It depends e.g. on knowing how many households are colder than they would like to be. In the UK for example, a temperature of 21°C would represent increased warmth for many households (Boardman 2007).
- Likely to be less than 30 per cent (Sorrell 2007) in the residential sector, but higher where people are living in cold homes at present (Milne and Boardman 2000) – they want to be warmer.
- Should be built into estimations of savings and in policy design.

Thank you

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