



Air pollution and its relations to climate change and sustainable development- Linking immediate needs with long term challenges
"Saltsjöbaden 3"
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European perspectives on air pollution needs in relation to climate change

Post-industrial revolution,
EU-wide emission trading on NO_x and SO₂
& air pollution impacts of CCS

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Energy for a Changing World



Key Objectives Climate Change and Energy Package

● Meeting the 2°C objective:

- In international negotiations GHG reduction target of 30% by 2020 for developed countries (vs. 1990).
- A firm, independent commitment to achieve at least 20% GHG reduction by 2020 for EU-27 (vs. 1990)

● Perspective of Kyoto Protocol:

- 2012 -8% (EU-15)
- Today -5% (EU-27)
 -1% (EU-15)

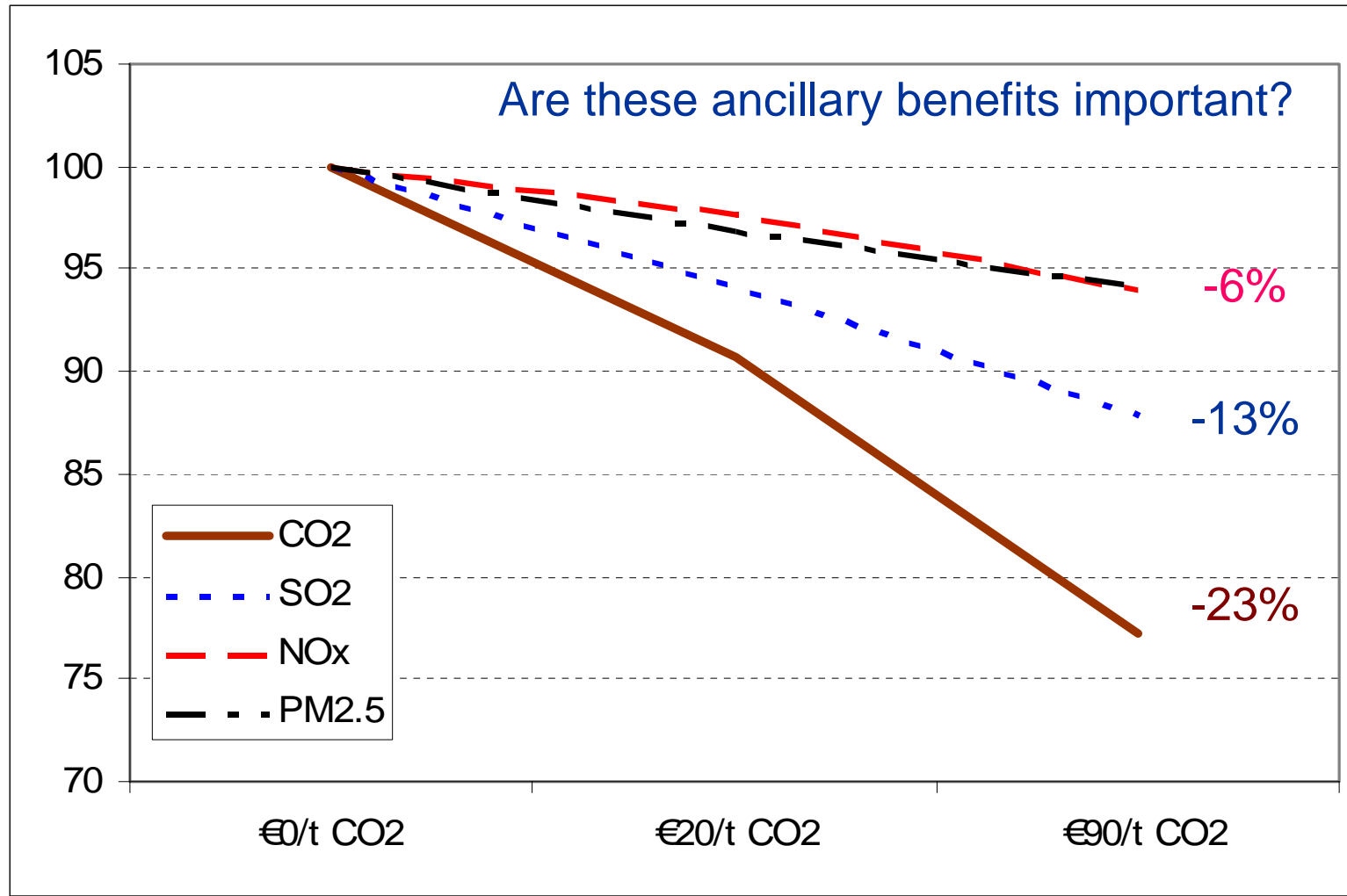


An Energy Policy for Europe

- **Energy efficiency (eg. cars, appliances, buildings)**
 - to be improved by 20% by 2020
 - **Renewable energy: 20% mandatory objective by 2020**
 - differentiation of targets necessary between Member States
 - flexibility in target setting within a country between sectors
 - includes minimum biofuels target of 10% by 2020
 - **Sustainable power generation from fossil fuels: aiming at near-zero emissions of new plants by 2020**
 - **New steps to reach internal market - options for unbundling and regulatory powers:**
 - important for EU ETS and decrease hurdles for renewables
 - **Nuclear: Member States' choice**
 - **Towards a European strategic energy technology plan**
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Reduction in CO2 reduces also air pollution in 2020



Sources:
NTUA,
IIASA,
AEAT (2006)

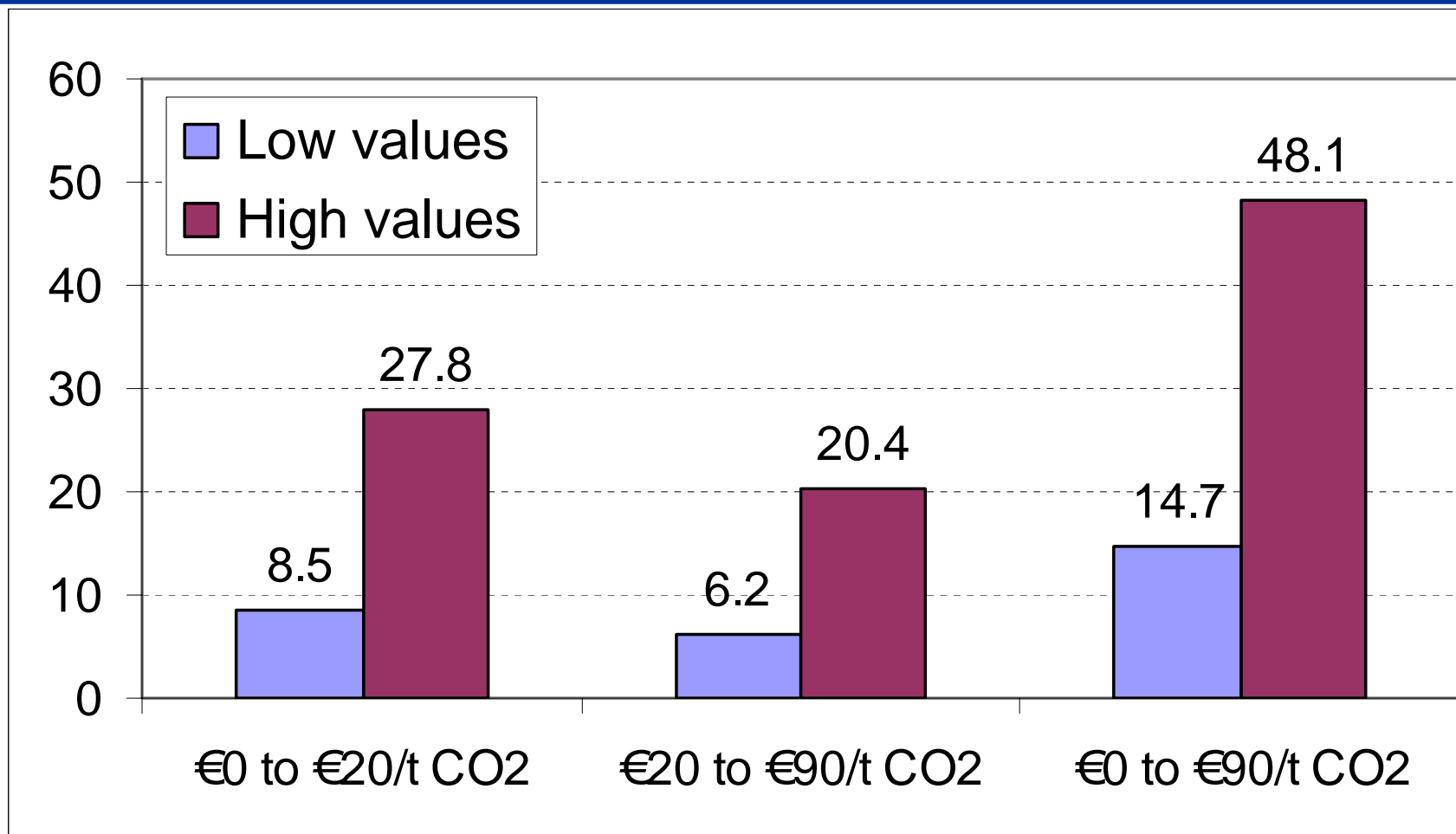


Recognition of link between air pollution and CO₂ in "Climate & Energy" package

“Action on climate change also reduces air pollution. For example, reducing CO₂ emissions in the EU by 10 % by 2020 would generate enormous health benefits (estimated at €8 to 27 billion). Such policies will therefore make it easier to attain the objectives of the EU’s strategy on air pollution.”



Health benefits of climate policies in 2020 (billions of euros)

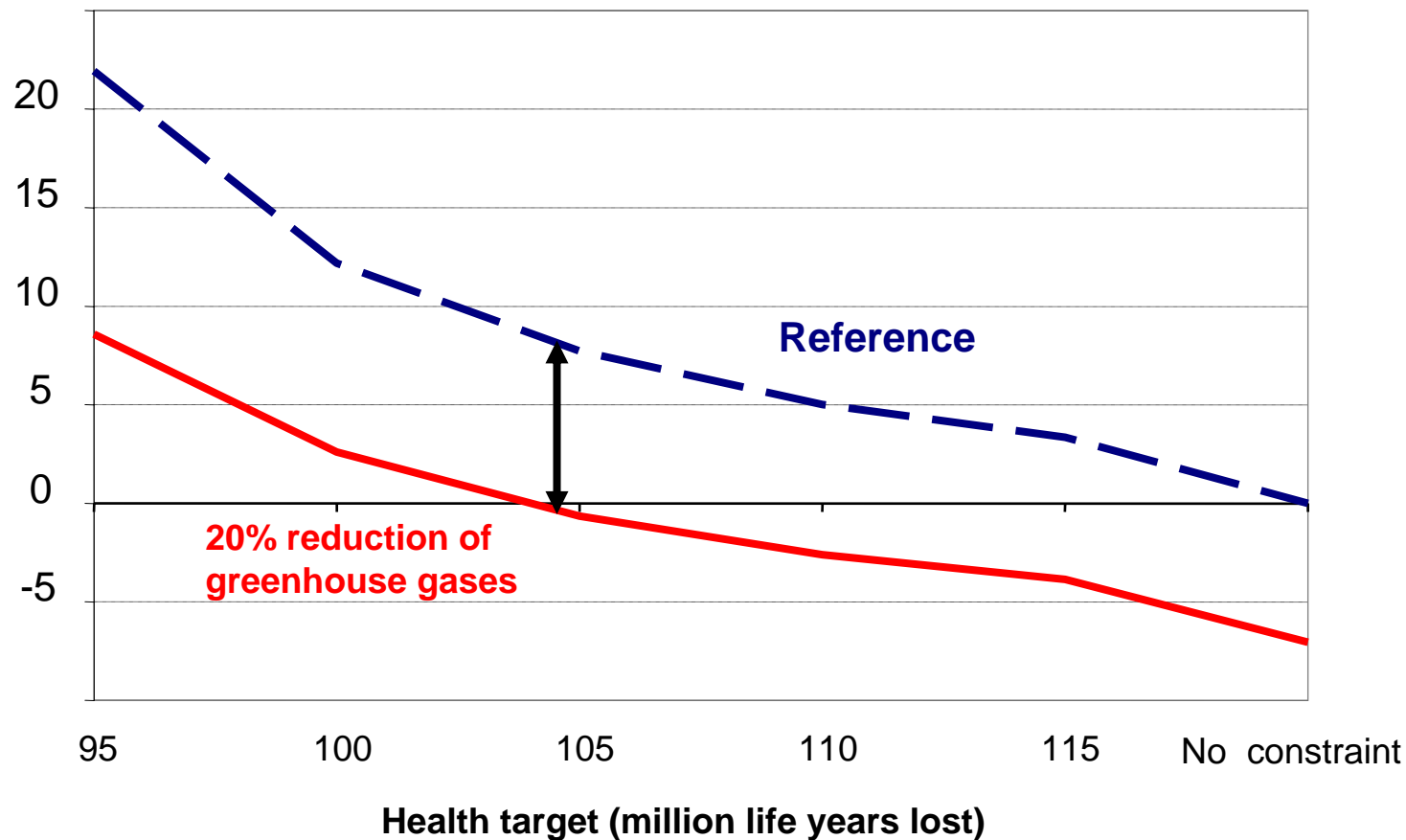


Source: AEAT (2006)



Net costs for further air pollution control as a function of CO2 mitigation

€/yr



Source:
IIASA, (2006)



Air pollution impacts of carbon capture and geological storage are important

- *“On the basis of the information currently available, the Commission believes that by 2020 all new coal-fired power plants should be built with CCS.*
- *Existing plants should then progressively follow the same approach.”*

Sustainable power generation from fossil fuels: aiming for near-zero emissions from coal after 2020 COM(2006) 843
- *“Power plants located in central Europe, the air pollution related health benefits could be as high as half or even 50 % higher than the costs of applying CCS”*

Impact Assessment of Sustainable power generation from fossil fuels: aiming for near-zero emissions from coal after 2020 SEC(2006) 1722



Some questions

- **What is needed to develop policies based on joint analysis in energy, climate change and air pollution issues?**

- **To what extent should we increase the use market based instruments to reduce air pollution?**
 - **Given increasingly globalized emissions trading in CO₂, how should we address emission trading on SO₂ and NO_x in the years to come in the EU, US and elsewhere?**

- **How much CCS can reduce air pollution?**
 - **What would be needed to get further information?**



Additional information

- **Climate change:**

http://ec.europa.eu/environment/climat/future_action.htm

- **Energy:** http://ec.europa.eu/energy/energy_policy/index_en.htm

- **CCS Consultation:**

http://ec.europa.eu/environment/climat/ccs/consult_en.htm

**Thank you
merci
спасибо
tack**

