Combining carbon pricing with supplementary policies: the IEA's approach



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Outline

 Justifications for supplementing a carbon price

- how supplementary policies interact with carbon pricing
- Managing these interactions

To enable least-cost climate mitigation policy



Supplementing with Energy Efficiency Policies



Technology support can lower long-term carbon prices



From MACC curves to policy packages



Further supplementary policies?

There is a trade-off between the benefits of early action in reducing the cost of the decarbonisation transition, and the potential to undermine the carbon pricing policy.

Key issue: lock-in of long-lived infrastructure



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Policies interact, so design as a package

e.g. Carbon price level depends on supplementary policy delivery





e.g. Carbon price level more sensitive to economic conditions with supplementary policies [2008 EU Package]



Data Source: Energy Efficiency, renewable energy and CO2 allowances in Europe: a need for coordination, CDC Climat ClimateBrief No18, Nicolas Berghmans

Policy interactions with a carbon tax:

Policy interactions not as severe, as carbon price does not respond automatically to supplementary policy delivery or economic conditions

Cost-effective supplementary policies give:

- More abatement for a given tax level, or
- Lower required tax level for a given abatement target.

Can be strong interaction if carbon tax is adjusted to meet climate targets/carbon budgets



The Policy Process



Lessons:

Design carbon price and complementary policies as integrated package

- Including impact of other regulations such as for conventional pollutants
- Give the carbon pricing policy room to function
- Design complementary policies for certainty of emissions reductions
- Build in reviews/adjustment mechanisms

Questions:

- How to balance maximising cost-effective abatement vs. having a simpler, easier to manage package ?
- Why only renewables what other key technologies to bring forward (CCS)?
- What kind of ongoing review or adjustment mechanism to keep package aligned over time?
- Can the carbon price alone provide sufficient certainty for investment (and retirement) – and if not, what?
- How to manage interactions between complementary policies and electricity markets?





Thank you

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Combining Policy Instruments for Least-Cost Climate Mitigation Strategies

INFORMATION PAPER

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