

Workshop on integrating carbon pricing with energy policies:

Background Information

Introduction

A number of countries are exploring the introduction of carbon pricing (emissions trading systems or carbon taxes) to curb their energy-related CO₂ emissions. One important issue to consider as part of this process is how these carbon pricing policies fit with other energy policies that also reduce CO₂, such as policies to support low-carbon technologies and energy efficiency programmes. Overlapping policies can either reinforce or undermine the effectiveness of carbon pricing, and similarly the carbon pricing policy can affect the performance of other programmes.

Identifying areas of policy overlap, duplication and synergies, and understanding how to manage policy interactions can improve a country's climate and energy policy package. This will benefit the country in terms of an effective and least-cost low-carbon development path, as well as support a more energy-secure future.

This workshop is part of a project funded by the UK Foreign and Commonwealth Office, which aims to develop guidance for countries considering the introduction of carbon pricing. In particular, the IEA will develop a "guidance document" based on the output of this workshop and separate studies being conducted with Chile and South Africa. The guidance document will outline key questions that countries will need to address to ensure good integration of a carbon price with existing energy policies.

This workshop will explore countries' experiences in the introduction of carbon pricing – both emissions trading systems and carbon taxes – and how these carbon pricing policies have interacted with other energy policies. The diverse range of country experiences will provide a rich set of lessons, from which we hope to draw general conclusions. It builds on a report released by the IEA in 2011 titled *Summing up the parts - Combining policy instruments for least-cost climate mitigation strategies*. The main conclusion of this report was that there is a strong case for a package of policies to form the "core" response to the challenge of emissions reductions, however these multiple policies can overlap and interact, either supporting or undermining one another, so policy packages need to be designed in a coherent and integrated manner.

Developing the IEA Guidance Document

Because national circumstances will make the optimal policy mix unique to each country, it is proposed to frame the IEA Guidance Document as a structured series of questions for countries to answer, rather than a set of prescriptive answers. These would be backed up with explanatory information to help countries understand why these questions are important, and options for addressing them. In the final session of the workshop, direct feedback and discussion from workshop participants will be sought on whether this is the best approach to providing guidance to countries contemplating the introduction of carbon pricing, and whether the correct questions have been identified. A first draft of the "key questions" suggested for the Guidance Document is presented below.

“Key Questions” for the IEA Guidance Document:

Policy mapping

- *What policies already exist that also contribute to emissions reductions?*
- *Do these policies target the emissions externality (i.e. do they seek to price CO₂ emissions directly), or do they have other objectives?*

Energy efficiency policies:

- *Do existing energy efficiency policies have clearly-defined objectives that are complementary to the carbon price?*
- *Are existing energy efficiency policies on track to deliver the full cost-effective potential for energy savings?*
- *With rising energy prices due to the carbon price, is a higher level of intervention to unlock energy efficiency potential justified by cost-benefit analysis?*

Technology deployment policies:

- *What are the objectives (e.g. technology learning, local economic development, energy security, investment certainty) of direct support policies for deployment of renewable energy, carbon capture and storage, or nuclear? What quantity of deployment is justified in the local context by these benefits, and at what cost?*

Managing a lower than optimal carbon price:

- *How does the level of the actual carbon price (or emissions cap if an ETS) compare to that theoretically justified by the emissions externality?*
- *If the carbon price level is initially low (or if it is undermined by existing fossil fuel subsidies), or ETS cap is weak, how will the appropriate level of energy efficiency and technology deployment policies be judged? Against actual energy prices? Or against “shadow” prices that would reflect more optimal carbon pricing?*
- *Would supplementing the carbon price with policies to guide investment in long-lived infrastructure be helpful, or do they undermine the carbon pricing policy?*

Supporting frameworks (infrastructure, finance):

- *Is there adequate competition and liquidity in energy and carbon markets that the functioning of the carbon price relies on, and do they facilitate entry of new players?*
- *Are infrastructure barriers to the integration of clean technologies, and if so do the long-term benefits of addressing these barriers outweigh the costs?*
- *Are there barriers to financing the higher up-front cost of low carbon technologies? Can cost-effective solutions be devised?*

Initial alignment of policies with the carbon price:

- *Are the likely emissions reductions from energy efficiency policies taken into account in the carbon price settings?*
- *Are the likely emissions reductions from technology deployment policies taken into account in the carbon price settings?*
- *Do the design of energy efficiency and technology deployment policies need to change to*

reflect the introduction of a carbon price?

- *Does the carbon pricing policy still have “room to operate” after the emissions reductions from other policies are taken into account?*

Designing the package to maintain alignment over time

- *How would the carbon price be affected if supplementary policies over- or under- deliver?*
- *How would the carbon price be affected if economic conditions diverge significantly from forecasts?*
- *Do supplementary policies deliver a large share of the required emissions reductions, making the carbon price more sensitive to changes in economic conditions?*
- *What other “game changing” developments are possible other than economic shocks that would also affect the way the carbon price functions? (e.g. that would result in significant changes in primary energy supply composition, energy demand, or energy prices) ?*
- *Can supplementary policies be designed to provide certainty of emissions reductions, to facilitate the operation of the carbon pricing policy?*
- *Even if a policy can be justified on a cost-benefit basis in addition to the carbon price, does the complexity added by pursuing this policy (and therefore the potential for misalignment) outweigh the potential benefit of the emissions savings? [That is, could it be better sometimes to have a simpler policy package that is easier to keep aligned but sacrifices some abatement potential?]*

Carbon Pricing and Energy Policy Reviews

- *How often will the carbon pricing settings and supplementary policies be reviewed?*
- *How will flexibility to adjust for unforeseen changes be balanced against providing certainty and confidence in the carbon pricing policy design?*
- *What events could justify interventions between these scheduled reviews?*
- *What design features in the carbon pricing policy could help maintain coherence between scheduled reviews?*

Institutional issues of policy co-ordination

- *Which government agencies will need to co-ordinate their policies with the carbon pricing policy?*
- *What co-ordination arrangements would work best (options range from consultative committees through to structural public sector reform) ?*
- *Will these arrangements ensure ongoing policy coordination as well as initial alignment of the policy package?*
- *Are there issues of split decision-making responsibilities between different levels of government (local, national, inter-government)? How can these be addressed?*