BCSE Issue Forum

Market Trends for Clean Energy Deployment and New Generation in New York

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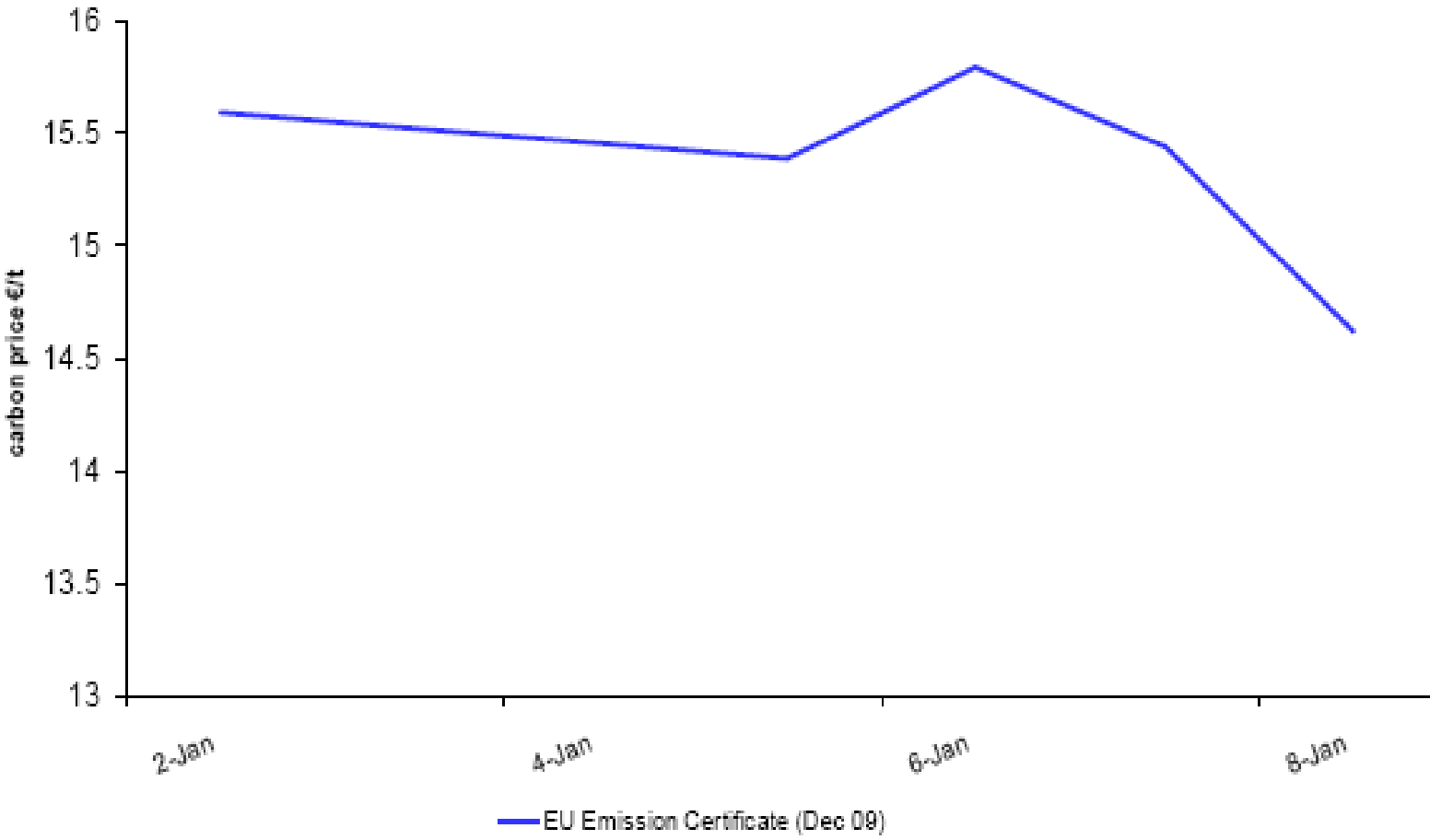
Current trend in the EU ETS

price of carbon in EU ETS is closely nected with many er fundamentals in economy. In the rent economic ation, expect bon prices to tinue to decline and roach all-time lows



Source: Datastream

European Union - Use of Auctioning Revenue

- At least 50% of revenues ***should*** be used to reduction or adaptation measures
  - Climate research
  - Renewable energy
  - CCS
  - The Adaptation Fund established at COP 14 in Poznan
  - Deforestation/afforestation (in EU or third countries)
  - Cover administrative expenses of the EU ETS
  - Member States must report to the Commission on how revenues are spent

Principles

- Risk buy-down for first of kind deployment is a good spend eg CCS
- Educational efforts and campaigns with business and other governments
- There are many failures (imperfections) in the marketplace and inadequate R&D (innovation) is one of them.
- Without market pull, businesses won't mobilize supply chain
- Private capital is abundant and will flow where there are:
  - Support measures that overcome first-mover risks (push)
  - Robust, technology neutral, long-term policies that create lasting demand and level the playing field (pull)
- Carbon markets are necessary, but not sufficient - other policy measures still needed to overcome other market failures

Appropriate Use of Auction Revenues: Accelerating Deployment

- Policy-driven markets are increasingly important given the need to accelerate the deployment of low- and zero-carbon technologies beyond the usual route to commercialisation
- An integrated policy continuum is essential: incentives for both technology push and technology pull
  - Supply chain mobilisation requires forward visibility on demand, ie long term market visibility, not just demonstration projects
- Business is used to dealing with risk, but dislikes policy risk in particular
- Depoliticization is desirable to the extent that political consensus can be reached
  - This means removing as many layers of politics as possible
  - Strong mandates up front are more desirable than multi-layered processes that leave too much to chance in implementation
- Investor confidence will grow over time but policymakers need to accelerate that process by improving the credibility of their ‘signalling’

Risk sharing in public-private partnerships

- Cost is not the only factor when deploying new technology; a range of risks exists
- Appropriately balancing the risk-sharing between public and private sector is critical:
  - If the public sector assumes more risk than is necessary, the taxpayer faces increased costs of the technology support mechanism;
  - If the public sector assumes too little risk, the taxpayer faces the costs of inaction or delay in technology deployment
- Relevant risks to be considered for the public sector are only those that would not be associated with building conventional plant or that the private sector does not have experience managing/pricing already
- Design of the policy support measure will substantially affect the risk-sharing balance

Example: CCS Performance-Based Mechanism

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CS demonstration
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functioning market.

An effective CCS funding support mechanism should achieve the following characteristics:

Funding profile:

The mechanism should provide payment that reflects:

- an ongoing payment to reflect the higher energy costs and opex in CCS; and
- a capital component to reflect the higher capital required for the capture technology and the transport and storage infrastructure

As the costs of CCS will vary with the volume of CO2 tonnes stored, the payment mechanism sho
also be based on the volume of CO2 tonnes stored, to allow alignment of revenues and costs for
efficient allocation.

Risk profile:

The mechanism should:

- Use existing instruments to avoid uncertainty and risks of creating new measures
- Reflect the likely long term policy framework as closely as possible, to allow policy continuity w
the likely future mechanisms to allow the demonstration phase to be an effective path to longer
term outcomes
- Allow private sector control over risks already managed by the private sector and only transfer
the public sector those risks that the market has no experience in pricing (long-term storage
liability and first-mover risks – the latter can be compensated via increased economic support)
- Allocate support ex-post, that is only upon successful performance, so that moral hazard risks
are reduced and the risk of successful plant design and operation is borne by the private secto
parties seeking funding support, not by the public sector on the basis of unreliable data provide
in advance of actual performance
- Provide certainty of availability of support, to provide the maximum incentive to invest by
ensuring that private sector developers know how much support is available and that it is not a
risk of being withdrawn

Sending policy signals that investors will believe

- Governments must be credible in order for the private sector to believe that good energy and environmental performance will be rewarded and poor performance penalised, and to change their operational and investment behaviour accordingly
  - So far, the US has failed to do this to the extent required
  - However, examples of good practice in policy are abundant within the US and can be replicated
- To reduce the distance in time and value between political signalling and investment, policy must be:
  - **Credible** – who is sending the signal?
  - **Coherent and consistent** – is the signal reinforced in multiple areas of policy?
  - **Long term** – is policy visibility consistent with investment cycles?
  - **Simple** – is regulation easy to understand and respond to?
  - **Predictable** – is the process of longer term review and change established according to explicit criteria?
  - **Transparent** – does the market have the necessary information to price assets correctly?

Parting words

Establishing firm Program budgets and implementation schedules is difficult because the market for CO2 allowances, like markets in general, is volatile. Therefore, the amount of proceeds that will be generated by the Auction is uncertain (NYSERDA Concept Paper, p. 7)

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