

## EU ETS Roundtable Discussion, EU Parliament 29<sup>th</sup> of April 2009

### Speech given by Carole Nakhle

*Good afternoon Ladies and Gentlemen,*

As I was preparing for this presentation, I came across a telling quote from Woody Allen, who once advised an assembly of college students saying, and I quote, “as you embark on your life’s journey, you will come to a fork in the road. The way to the left leads to inevitable destruction. The one to the right, to despair and misery. Choose wisely”.

I was wondering whether the same wisdom applies to the heated debate we are addressing today where the noble, long-term, objective of tackling climate change is put on the path of a ‘Y-shaped’ fork with one side pointing into the direction of carbon taxes and the other into carbon permits. Both are going to involve some pain and neither can be sure of working successfully. After all, the complexities and uncertainties of the real world are probably greater than any theoretical economic advantage of one method over the other.

In an ideal world with efficient market and perfect information, that comparison is irrelevant, as both instruments are the sides of the same coin. Both are market-based mechanisms and as endorsed by over 2,500 economists (*Redefining Progress, 1997*), market based policies are ‘the most efficient approaches to slowing climate change’. Rather than attempting to control market actors directly as is the case with the traditional ‘command-and-control’ policies, they shift incentives so that individuals and firms will change their behaviour to take account of external costs and benefits. A cap-and-trade system controls the quantity and lets the market determine the price, while a carbon tax controls the price and lets the market determine the quantity. In other words, with the former we end up with a ‘known’ quantity but price uncertainty and with the latter a ‘known’ price but volume uncertainty.

### **EU ETS**

If we believe the scientists, and adopt the assumption that it is the volume of CO<sub>2</sub> emissions that we need to control and reduce to a specific level, then it makes perfect sense to adopt a cap-and-trade system as it is the volume of CO<sub>2</sub> that it fixes. Hence, in theory, trading looks better. However, in terms of practicality, the trading scheme, as it applies in the EU, falls short for several reasons (what the EU made of it is a mess). Let me highlight the main ones.

## **1. Allocation problem:**

### *i. Collapse in prices*

It is now suggested by many commentators that the first phase of the EU ETS was a failure – although to be fair one can say that it was a trial. The over-allocation of allowances resulted in a collapse in the price of credits to below €/tonne of CO<sub>2</sub>. The problem has been overcome to some extent in Phase II with a tighter allocation but nobody expected the worst recession for 100 years so prices are weak once again with prices dipping below €/tonne back in February. The fall in price reflects falling emissions and a rush in the selling of permits, raising around €1bn for cash-strapped, credit-crunched firms. Such a low and volatile price for carbon is unlikely to encourage investment to achieve carbon reductions; pollution is now too cheap, making renewable generation such as wind and solar power even less cost-competitive than the burning of fossil fuels.

The problem is not just with price. It is also about the period the permits cover. EU ETS discouraged rather than encouraged investment in new and low carbon technologies in the long term. Current allocation periods provide certainty for only three years – periods that are far shorter than those associated with investment cycles.

### *ii. Administrative burden*

The big drawback of the EU ETS is the allocation system which has become so complex that nobody really understands it. The Industry lobbyists have overwhelmed and outgunned the policy makers resulting in over allocation, too much complexity and substantial administrative burden, which in turn scores badly on transparency. Every Member State wants to protect their pet Industries and each Government is under pressure to allocate generously to its own national emitters. Until policy action is universal, Government concern for industrial competitiveness means that the effectiveness of the system will be in question. Policy makers keep reinventing the wheel on allocation and scope of what is included in EU ETS and not. So we had grandfathering for Phase I and Phase II but have now to deal with a new complex process complex covering ‘Carbon Leakage’ and benchmarking for Phase III. Ongoing uncertainty on allocation simply discourages investors to invest in abatement as the parameters are all too uncertain in such a highly politicised process.

### *iii. CDM (Clean Development Mechanism)*

This is one of the main mechanisms of the Kyoto protocol and the EU ETS. It provides for the developed countries to implement projects in developing countries that either reduce emissions or absorb carbon. These projects receive emission credits (called Certified Emission Reductions). The CDM is an important element of the cap-and-trade system, as without it, it is impossible for most Member States to reach their very ambitious targets.

If a developed country with a Kyoto target finds it too difficult or too costly to reduce emissions, it can buy CERs from developing countries. The project has to satisfy itself that the reduction is genuinely additional (that it would not have occurred anyway) and that it is not offset by an increase in emissions elsewhere. But in reality, the system is impossible to police, and some have described it to be 'a little more than a massive scam'. More importantly, it is clearly placing the developing countries at an advantage as they benefit largely from selling the CERs, let alone encouraging 'cheating and evasion'.

## **2. Emissions forecasts**

A good allocation system requires accurate emissions forecasts estimated by emitters. But no one can give accurate forecast of emissions. The best an industry can do is to base future emissions forecasts on past emissions, which is unlikely to be the most accurate. And if we cannot forecast emissions, the system does not work effectively, hence the huge carbon price volatility, which is often cited as the main detriment to alternative sources of energy competitiveness.

Another difficulty emerges in determining the proportion of permits to be allocated for free. This has to be done on individual installations, knowing that the EU ETS covers more than 10,500 installations. Member states have used different metrics as there was no benchmarking to base targets on. But the question is, is it possible to identify a fair benchmarking?

### **3. Discrimination:**

Many economists (such as Lawson) argue that the system is arbitrary covering some emissions but not others (it is also impractical to extend it to the personal and household sector including motoring).

The current allocation system for Phase III will be driven by benchmarking but this will unfairly penalise older installations. Take for instance two oil producing installations in the North Sea – the Buzzard field (producing 200000 bpd), which is a relatively large field discovered back in 2002 and Magnus (producing 20000 bpd), an old field which is in the declining stage of production. On CO<sub>2</sub> per production basis, Buzzard emits much less (simply because production is large enough) hence it expects to receive far more free permits, unlike the older one which will receive very few although it needs more assistance to avoid earlier closure and loss of indigenous production potential.

So, although a cap-and-trade system sounds attractive and is originally well intended, the way it has been applied does not give too much hope about its effectiveness in tackling carbon emissions, at least not in the foreseeable future. The vagaries of the allocation process and price volatility will ensure limited abatement. Installation owners simply view this as a compliance system and little else.

### **Carbon Tax**

Let us now consider the other policy measure: a carbon tax, which raises the prices of carbon-rich energy sources to reflect the social and environmental costs they inflict on society.

First of all we have to be clear about the fact that an ideal tax exists just in theory, and taxes do introduce distortions into the market. Most legislators view advocating any tax increase as tantamount to political suicide, as taxes are often met with resistance. But a coalition of academics and polluters now argues that a simple tax on each ton of emissions would offer a more efficient and less bureaucratic way of curbing carbon dioxide. So how does a carbon tax compare with a carbon trading scheme especially in terms of the issues highlighted earlier.

## **1. Allocation Issue**

First of all the allocation problem does not apply in the case of carbon tax. In fact, tax is much easier to apply. A carbon tax can be introduced with teeth overnight as they are familiar instruments to policymakers – they are easier to explain and understand than a cap-and-trade program. Because of need for allocation system a trading system takes years to implement. The Kyoto protocol was signed in 1997 but the EU ETS will not have teeth until 2013 and possibly not 2020 so very, very slow to have any impact on behaviour (Remember Norway, where the carbon tax was introduced very quickly back in 1991, almost 20 years ago and had an immediate impact on behaviour). The cap-and-trade system has more moving parts that increases its complexity and makes it less transparent. The relative transparency of a carbon tax may gain it strength in the context of the recent financial climate, as many have grown more sceptical of seemingly complex financial structures. Ironically, transparency could be a political liability for a carbon tax – energy costs more discernable than in the case of trading scheme.

Norway has applied a well functioning carbon tax since 1991. Though Norway is not an EU member it became a participant in EU ETS with effect from 1/1/2008. Much to the dismay of the industry, the Norwegian Government decided to retain the existing carbon tax, which was first introduced in 1991. This necessitated some changes to the design of both systems to give effect to the Government's ambition to ensure that the overall financial burden of both systems remained broadly equivalent to the previous carbon tax regime. This has been achieved through reducing the carbon tax rate by an amount equivalent to the expected carbon price within EU ETS. The carbon tax rate is reviewed each year and adjusted based on the expected carbon price for the following year. Upstream Installations within EU ETS in Norway receive no free allocation and are required to purchase all their allowances with effect from 1/1/2008. For Norway the simple message is that the introduction of EU ETS has not resulted in any increased cost over and above that experienced under the carbon tax regime: Ethics!

In summary, a carbon tax has several critical advantages over a cap and trade system, namely with a carbon tax there is no need for an allocation system, which is a massive saving in complexity and administration and makes the system more immune from intense Industry

lobbying. Of course, tax systems can be extremely complicated but it is all in the design. Again, Norway has a very robust yet very simple and transparent tax system.

Also, with taxes, there is a broader scope for emissions reductions. Trading systems can only be implemented among private firms or countries - not individual consumers. Carbon taxes extend to all carbon-based fuel consumption.

## **2. Emissions Forecasts**

These are not required, as emitters pay tax on CO<sub>2</sub> actually produced.

## **3. Price Certainty**

A carbon tax encourages far more abatement due to long-term certainty of the price signal and predictability. Cap-and-trade systems will do little to mitigate the price volatility that historically has discouraged investments in less carbon-intensive electricity generation, carbon-reducing energy efficiency and carbon-replacing renewable energy.

## **4. Revenue Certainty**

Carbon tax gives certainty of revenue flows to Governments. Important for Budgets and good caused funded by EU ETS such as renewables and CCS. Of course, a cap-and-trade system can be designed in a way where significant revenues can flow into Government coffers but this requires that 100% of the allowances are distributed through an auction process.

## **Conclusion**

Over time the two systems converge once the trading scheme moves to 100% auctioning of allowances (i.e. no free ones – but this is going to take years for cap-and-trade. So the only difference is the price set by the market or by policy makers. Industry prefers a trading scheme simply because the complexity has slowed down the implementation and lead to a

very soft landing in terms of costs. Also a lobbyists paradise, scare the policy makers that your Industry will close and move to China and in return they capitulate and hand over loads of free allowances. A carbon tax would cause a very hard landing and much easier to implement. In simple terms trading is good for shareholders/traders but a carbon tax is better for the environment.

‘You're going to pay one way or another, whether it's a tax or a permit program’. But some studies show that the benefit-to-cost ratio of a tax-based system would be five times that of a cap-and-trade system. While a cap would provide more certainty on how much emissions would be cut, the consequences of being uncertain about emissions over any short period of time – as a result of a carbon tax - just aren't that serious; the science itself is not precise, besides CO<sub>2</sub> is a stock pollutant hence pollution does not depend on annual flow.

And of course there are those who question, and rightly so, what the real driver of carbon reduction is. They doubt that EU ETS has produced any reduction in emissions that would not have happened anyway, the real driver being the cost of energy not the cost of carbon. The complexities and uncertainties of the real world are probably greater than any theoretical economic advantage of one method over the other.

### ***Can we afford to be green?***

One cannot talk about tackling climate change and reducing CO<sub>2</sub> emissions to meet the longer term target of achieving climate security, without questioning whether we can afford all this action on climate change in the depth of the worst recession in a Century. Articles are constantly being published on how ‘going green’ will drive many people out of business, creating a massive increase in unemployment and push millions more people into permanent fuel poverty. My own judgement is that with the economic outlook so uncertain and recession cutting so deep, these noble longer term goals are bound to take second place to harsh economics. More than anything the world needs new technologies to both fix the climate and address the worlds long term energy requirements. There is a real danger that the real priorities are being overlooked.