

# Submission from Civitas to the Energy and Climate Change Committee inquiry into the EU Emissions Trading System

David Merlin-Jones

August 2011



© Civitas 2011

# 55 Tufton Street London SW1P 3QL

Civitas is a registered charity (no. 1085494) and a company limited by guarantee, registered in England and Wales (no. 04023541)

email: info@civitas.org.uk

Independence: Civitas: Institute for the Study of Civil Society is a registered educational charity (No. 1085494) and a company limited by guarantee (No. 04023541). Civitas is financed from a variety of private sources to avoid over-reliance on any single or small group of donors.

All publications are independently refereed. All the Institute's publications seek to further its objective of promoting the advancement of learning. The views expressed are those of the authors, not of the Institute.

August 2011

### **Author:**

David Merlin-Jones is a Research Fellow at one of the UK's leading independent think tanks, Civitas. He specialises in economics issues and, in particular, British manufacturing and energy. He recently published a book investigating the effect of climate change policies on the UK's chemical industries entitled 'Chain Reactions'. He is currently working on a follow-up book evaluating the merits and failures of the EU ETS.

### **Executive Summary:**

At present, the EU ETS has a known operational lifespan of just 9 years; businesses are in the dark as to what will take its place after 2020.

Overall, the scheme has been plagued with controversy: issues of price volatility, uncertainty and fraud (see below paragraph) have left the ETS damaged in the eyes of investors and undermines long-term emission reductions.

Additional concerns such as carbon leakage mean that the EU ETS cannot be viewed as a viable policy tool without major structural changes well beyond any envisaged thus far.

We must look post-2020 for the innovations and technologies that will allow us to make the transition to a low-carbon economy at the lowest price, something the ETS fails to deliver.

# 1) Does the EU ETS remain a viable instrument for climate change mitigation in the EU?

### No, for the following reasons:

**1.1 Grandfathering:** This approach to allowance distribution has seen the ETS subjected to two Phases of lobbying and distortion; firstly, from industry seeking to influence the national allocation plans (NAPs), and secondly from national governments pressing the EU for the most generous caps to protect their own industries' price competitiveness. The result of this is well known, with an estimated 400 million surplus permits having been distributed in Phase II. As a consequence, it will be possible for some installations, totalling around 50% of EU emissions, to not engage in abatement until 2016. Even in Phase III, when NAPs are being abolished, lobbying is still likely to continue, with governments looking to secure the lion's share of auction revenues.

**1.2 Uncertainty and volatility:** We have seen significant and volatile fluctuations in the price of an EUA, varying between €30 and €0.03. This is undesirable if we are to provide a consistent incentive to reduce carbon emissions. Uncertainty over the price of carbon makes it far more risky to invest the necessary resources into abatement, given that the potential payback is subject to great insecurity. Instead, many companies prefer to pay for credits and avoid abatement, running the risk of a continued carbon-intensive technological lock-in for another business cycle.

**1.3 Short-termism:** This volatility and uncertainty has resulted to some extent from the short term nature of the scheme. With plans only running until 2020, a mere nine years away, firms looking to make significant abatement efforts are disadvantaged by being unable to tell if their investment will pay off. This short term bias is not a failure of politics or foresight, but an intrinsic requirement of

<sup>&</sup>lt;sup>1</sup> Friends of the Earth Europe, The EU Emissions Trading System: failing to deliver, October 2010, p. 3

climate change policies that are reliant on consistent approach running through successive governments. It would be hard to reengineer the current ETS to take the longer term into account.

**1.4 Conclusion – Not viable:** These issues of uncertainty, short termism, over allocation, distorting lobbying and price volatility all undermine the case of the ETS remaining a viable instrument for climate change mitigation. The myriad of problems damages investor confidence and provides the shakiest of foundations for businesses looking to put resources and investment into achieving a low carbon economy.

# 2) Can the EU ETS operate effectively in a world without legally-binding emissions reduction commitments and other cap-and-trade schemes?

### No, for the following reasons:

- **2.1 Carbon Leakage:** The main issue affecting the operation of an EU only emissions trading scheme, where other countries do not impose comparable costs, is carbon leakage. This occurs as firms emigrate to countries where the cost of carbon is smaller or non-existent, allowing them to pollute more and giving rise to a net increase in global emissions, whilst those in the EU's are falling. While efforts have thus far been made to avoid leakage by allocating free credits, this does not mean that companies could withstand full exposure to the ETS by having to purchase all their credits: 2013 will likely see a sharp rise in the number of firms emigrating. It is important that a balance is found to create the necessary incentives, while not promoting carbon leakage; the ETS does not provide this.
- **2.2 Costs and existing evidence of carbon leakage:** Although the costs associated with the ETS are currently small in comparison to those imposed by other environmental levies, these will jump from near zero now, to over £1.5 million in 2013 once Phase III begins and by 2020 they could be as large as £3 million.<sup>2</sup> It is the cumulative effect of the EU ETS costs on top of those from other levies and targets which will have the real damaging effect. Carbon leakage is a real and present problem as evidenced by the Teesside Corus plant that was mothballed in December 2009 despite receiving free permits worth £250 million over three years<sup>3</sup>.
- **2.3 Energy intensive industries:** Carbon leakage and negative impacts on competitiveness are greatest when in energy intensive industries. Critics have argued that even in these industries the free allocation of credits has developed into a surplus, proving that the ETS is not having an adverse effect. Taking the cement industry as an example, we can see that under Phase I's underwhelming targets, over-allocation did occur; during Phase II, although the allocation remained broadly the same, the effect of the recession meant that a surplus did build up. However, had the recession not occurred, it is likely that by 2008 the energy intensive industries' emissions would have exceeded allocations, forcing firms to either reduce emissions or buy excess credits, thereby imposing additional costs.
- **2.4 Exporting and importing emissions:** By pushing energy intensive firms outside the EU we are not reducing emissions; we are merely exporting them to an area which is unlikely to have the same environmental standards as our own. Many of the products of émigré companies are imported back into the EU, causing further emissions in the process and compounding the negative effect. In the

<sup>&</sup>lt;sup>2</sup> Waters Wye Associates, The Cumulative Impact of Climate Change Policies on UK Energy Intensive Industries – Update Against New Government Policy, March 2011, p. 3

<sup>&</sup>lt;sup>3</sup>http://www.steelguru.com/sfTCPDF/getPDF/MTM0NjU0/Downsizing deals Corus to receive GBP 250 million in car bon\_credits.html

UK's case, although the production of carbon has fallen by 15% between 2005 and 2009, once carbon imports are included, carbon consumption has in fact risen by 19% over the same period.<sup>4</sup>

**2.5 Solution: border tax adjustments:** This would impose a tariff on goods imported from outside EU ETS-compliant zones, to account for the cost of carbon emitted in production and transportation, and thus deliver parity of costs with products made by ETS installations. This means that firms facing financial pressures as a result of the EU ETS will not lose out to firms abroad who are otherwise effectively gaining a competitive advantage due to the EU's environmental concern. However, such a tariff may be considered a protectionist measure, with potential retaliatory responses from trading partners. Nonetheless, it remains a strategy that should be seriously considered.

# 3) What reduction in emissions will the EU ETS deliver in Phase III, within the EU and abroad?

- **3.1 Carry over from Phase II:** The ability to carry Phase II credits over puts Phase III at the same risk of being ineffectual. It is estimated that credits worth 970 MtCO<sub>2</sub> will be carried over, the equivalent of 40 per cent of the Phase II cap<sup>5</sup>. This problem will be self-correcting over time, as companies will be forced to use their surpluses for compliance purposes when freely allocated credits and the cap limit decline. However, this still means emissions reductions will only really begin in 2016-18. This is an unacceptably long period of time, especially when more efficient policies and mechanisms to reduce emissions already exist.
- **3.2** There will still be a Phase III surplus: While Phase III itself is the most credible part of the ETS, it still has significant shortcomings. In the third Phase, auctioning will only be introduced slowly, with a large number of permits still given free initially. Companies will be able to bank the excess allowances they receive in the less onerous first years, which guarantees that the emissions release will occur at some point. They will then be able to use them as auctioning increases. This means that during Phase III, the level of emissions might fail to fall in line with the cap, at least until the banked credits are used up.
- **3.3 Unacceptable solution: Historical emission cap:** An oft-mooted solution to this problem is to adjust the caps to reflect historical emissions. However the obvious and clear danger with this proposal is that it will shackle industries emissions to a historically low level. By basing the cap on a period including the recession, and its consequential lower emission levels, companies will be trapped under a ceiling that fails to reflect normal market conditions. This would present a real problem for industry to supply the increasing demand as the recovery strengthens and therefore is unsuitable.
- **3.4 Unacceptable solution: Set aside credits:** An alternative to adjusting the cap would be to cancel unused allowances. This also seems unpalatable, with the European Parliament already rejecting a proposal for the setting aside of 1.4 billion allowances<sup>6</sup>. This is a welcomed decision given the effects it would otherwise have on investor confidence: the artificial intervention and resulting price inflation would have been counter to market expectations and would have totally undermined the premise that the free market should determine the price of carbon. Once the precedent is set, there would be no guarantee it would happen again so would entirely undermine the credibility of the scheme.

<sup>&</sup>lt;sup>4</sup> Helm, D., 'Green growth: opportunities, challenges and costs' in Tsoukalis, L., & Emmanouilidis, J., eds. *The Delphic Oracle on Europe: Is there a Future for the European Union?*, Oxford, May 2011, p. 17

<sup>&</sup>lt;sup>5</sup> World Bank, State and Trends of the Carbon Market 2010, May 2010, p. 57

<sup>&</sup>lt;sup>6</sup> Committee on the Environment, Public Health and Food Safety, On the analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage, (2011/2012(INI)), June 2011, paragraph 19

# 4) Could the environmental and economic efficiency of the EU ETS be improved by linking with other emissions trading schemes and how can this be achieved?

- **4.1 International ETS trials are failures:** A global or multi-regional ETS does have attractions as it would overcome the issues of carbon leakage as there would be a global carbon price and therefore no competitive issues. However the political economy of such a scheme is fraught with difficulties. Other nations have attempted emission trading schemes but with scant enthusiasm:
  - Australia delayed after a huge negative public reaction
  - China undergoing provincial trials but it will only limit the *rise* in emissions, not reduce them.
  - Japan delayed due to being perceived as too costly to the Japanese economy and likely to be abandoned
  - South Korea delayed for four years and going ahead with less than 10% auctioning and pathetic non-compliance penalties
  - United States rejected, and California's own state ETS is delayed due to being legally challenged
- **4.2 Countries do not want to burden themselves:** Most of these countries rejected schemes because nowhere else (bar the EU) has subjected themselves to the crippling economic costs an ETS creates. Hence they are keen to avoid disadvantaging themselves competitively. Realistically, the EU is and will continue to be the sole ETS in the world, and this alone greatly reduces its effectiveness
- **4.3 Complexity of linking:** China, if it goes ahead with a full scale ETS will be the largest other scheme, but given it is not actually reducing emissions, it is not compatible.

# 5) What actions should the UK and the EU be taking to promote the development of compatible ETSs internationally?

**5.1 None:** the EU ETS is a bad advert: It could be argued that the EU should promote the development of similarly designed systems across the globe but this is a naïve wish. Any country would look at the EU ETS and all its inefficiencies, corruption and fraud, and recognise it is not a viable solution to carbon emissions problems. The international reputation of the system has been tarnished to such a degree that the already difficult task of convincing other nations to impose additional costs on industries has been made even harder, especially in this era of low growth, with intense international competition.

# 6) Could sectoral agreements form part of the future of the EU ETS?

They should not, for the reasons below using the example of the aviation sector

**6.1 The long-term economic cost:** The planned inclusion of aviation into the ETS in 2012 has created a backlash from airline companies and governments. Standard & Poor has estimated that at a carbon price of €15 per tonne of CO<sub>2</sub>, the aviation industry will have to pay €1.125 billion in 2012 alone. Additionally Ernst & Young has suggested that the EU ETS will erode European airline profits in the long-term, potentially by as much as €40 billion by 2022. We should not undermine successful European industry.

- **6.2** The short-term consumer cost: Proponents of the inclusion argue that aviation's viability should not be affected as they can pass on whatever costs they suffer to the consumer. However, with 85% of the permits being freely allocated until 2020, there is a chance that companies will benefit from windfall profits while also having the excuse to pass on non-existent 'additional' costs to consumers.
- **6.3 Uncertainty:** Ignorance about the timeframe for inclusion is rife and the shadow of uncertainty that plagues much of the ETS falls here as well. There has been a failure to meet the February 2010 deadline for the adoption of the legislation, with four countries including Germany yet to accept the change. However tickets for flights in 2012 are already on sale with airlines forced to guess what the effect of extending the ETS will be. This makes investing very hard, while time and money are wasted second-guessing what will happen.
- **6.4 Legal challenges:** The potential saving grace of the inclusion of aviation is that it applies to all airlines operating within EU airspace, not just European carriers, creating a comparative competitive disadvantage. However, non-EU firms are not willing to accept this and are prepared to resort to legal resistance. The Chinese Aviation Transport Association has stated that it is prepared to sue the EU and has described the measure as "only useful in Europe". The Transport Association of America makes the point that only 9 per cent of emissions from a San Francisco to London flight are released in European airspace. The EU could launch a trade war against itself with China, Russia, the US and others all pitted against it.
- **6.5 Damaging knock-on effects:** The results of these legal challenges will be unwelcome either way. If they are successful and foreign airlines become exempt, then the imposition of uneven costs will have disastrous consequences for European airlines in a very competitive market. If they fail, the backlash from non-EU airlines will mean companies refusing to pay and therefore suspending flights into Europe. The loss of revenue from airport slots as well as the impact on business and tourist trips will have a large economic cost for the wider economy. There is even the chance of carbon leakage, with passengers using airlines with extra-EU transport hubs to avoid added fees, adding to carbon emissions.

# 7) Is the EU ETS a constraint on unilateral action to reduce emissions and, on the other hand, how are Member States' own policies affecting the operation of the trading system?

It is not a constraint for the UK, although it should be

- **7.1** The UK context and how the ETS nullifies extra action: Britain's attempts at unilateral action have been numerous and varied but their effectiveness in all cases have been hampered by the existence of the ETS. Policies such as the carbon price floor, while sound in theory, have no practical purpose in reducing emissions: any carbon reduction that occurs in the UK as a result of this will allow other ETS installations to buy the saved credits and pollute more as a result. Given the nature of global warming, a ton of carbon dioxide released in France has the same effect if it were released in the UK. The ETS means unilateral action displaces carbon emissions but does not reduce them.
- **7.2 Unilateral action is economically damaging:** Looking at just one sector, in the chemical industry highly vulnerable to energy cost rises 600,000 jobs are at risk if energy bills continue to be inflated by extra green costs. While companies can deal with individual levies, their cumulative effect is too damaging. Along with the potential social consequences of this loss, the industry has a turnover of £60 billion per annum and accounts for 15% of UK exports, almost all of which would also be lost. <sup>7</sup>

<sup>&</sup>lt;sup>7</sup> Chain Reactions, p. 2

Lastly, but by no means least, the chemical industry is a vital supplier of low-carbon products, from insulation to fuel-efficient materials and without these, Britain's attempts at creating a low-carbon economy will be smothered in the cradle.

**7.3 Carbon Leakage:** Unilateral action of any kind, when it comes to emission reduction policies, is risky. There is a real chance of overburdening home industries with crippling costs (above those of the ETS), inadvertently making them less competitive compared to others who do not. This is more so the case within the EU, with low transport costs and a common market. Although forcing dirty polluters to go out of business may be an effective way of reducing carbon emissions in the short term it does not help us move towards the LCLC economy that we will need to establish a sustainable green future - all it means is that we will import the carbon back. We must balance the emissions reductions whilst remaining economically viable.

# 8) Should the EU ETS allow Clean Development Mechanism (CDM) credits to be used?

# No, for the following reasons

- **8.1 The CDM is beset by manipulation:** Given the funds on offer, many extra-EU companies are trying to muscle in and exploit the system and a service industry has emerged to help them. Some accrediting agencies are being paid according to the number of Certified Emission Reduction credits (CERs) they can deliver. A study of the top five UN-accredited validatory bodies found that on a scale from 'A' (very good) to 'F' (very poor), none scored higher than 'D'.<sup>8</sup>
- **8.2** Non-environmentally beneficial companies are supplying credits: The Industrial Gas Credit fraud (as it should be called) based on HFC-23 production is already well documented. It is so lucrative that the Chinese government has also been making a significant sum out of the scheme by charging a 65 per cent tax rate on HFC-23 CDM profits. Overall, 77 per cent of EU ETS CERs come from the reduction of HFC and N2O and in Phase II, these credits amounted to €2.8 billion. Non-renewable or carbon-intensive power sources can also apply for CDM status. A 4,000MW coal plant in Gujarat, India, has received CERs because it is marginally less polluting than other coal stations. This is despite the fact it emits 26 million tonnes of CO<sub>2</sub> per annum, will do so for at least 25 years and is India's third largest source of emissions and the 16<sup>th</sup> largest worldwide. Given how tainted the CERs are, they should not be accepted.
- **8.3 Zero-sum global benefit:** the CDM effectively exports the EU's carbon reduction commitments onto developing countries, an appalling shirking of responsibility. This is because while local installations might reduce their emissions by 500t/CO<sub>2</sub>e, this allows the buyer of resulting 500 CDM credits to raise theirs by the same, cancelling out the benefit. In the case of industrial gases, the outcome is entirely negative. Here, the emissions are deliberately produced and then destroyed to generate credits, which then allows EU firms to emit more CO<sub>2</sub>. In other words, without the CDM, these emissions would never be made. Overall, the scheme has no environmental benefit.

# 9) How serious an impact have the recent cases of fraud had on confidence in the EU ETS? Are further improvements in security and auditing required?

<sup>&</sup>lt;sup>8</sup> Öko-Institut, 2010 Rating of Designated Operational Entities (DOEs) accredited under the Clean Development Mechanism (CDM), May 2010, p. 4

<sup>&</sup>lt;sup>9</sup> Sandbag, Industrial Gas Big Spenders: HFC and N20 adipic credit usage in 2010, May 2011

<sup>&</sup>lt;sup>10</sup> http://www.guardian.co.uk/environment/2008/may/21/environment.carbontrading

# Very serious and there is an urgent need for improvement

- **9.1 Fraud is rife:** Security in registries is appalling, as evidenced by the January 2011 scam that stole €30 million worth of credits and led to the suspension of all trading for a week (and longer for some countries) In addition, VAT 'carousel fraud', has cost the EU ETS €5 billion so far, in 11 countries. Indeed, the European law agency has estimated 90 per cent of all market volume in 2009 was caused by fraudulent activities. 12
- **9.2 Fraud is the result of weak security:** Registries all have differing levels of security, which means some act as a backdoor to the whole system. So long as some are inadequately protected, they are all vulnerable.
- **9.3** It erodes investor confidence: The black market of credits means companies are increasingly suspected that the credits they purchase are fenced, and therefore void if found to be stolen. This uncertainty undermines the credibility of the ETS.
- **9.4 Phase III reforms are not enough:** The creation of an EU-wide registry is good, but countries (including the UK) are opting out. Unless their security is equal to the universal registry's, this Achilles' Heel remains vulnerable. Passive laws are inadequate: an active watchdog is required if the ETS is going to continue. A full-time, independent agency is required to prevent fraud. It would also be sensible to restrict access to the carbon market purely to those who need it for compliance purposes.

# 10) How can the EU ETS be strengthened to operate effectively in a world without legally binding emissions reduction obligations?

- **10.1 Suggested reforms:** The list of reforms that could improve the ETS in a world without legally binding targets might include:
  - The ending of free allowances earlier
  - An EU wide price floor to reduce volatility
  - A clear outline of the shape and future of the ETS post-2020
  - The ending of primary participants in auctioning
  - Better auditing and fraud detection
- **10.2** The EU ETS is inherently unsuitable: However, none of these small improvements will necessarily overcome the ETS's Achilles heel: that it doesn't promote the long term investment necessary to reduce emissions. This is setting us back in achieving lasting targets, such as the 2050 80% carbon reduction.
- **10.3 Proposed solution of a carbon Tax:** To this end, this report does not recommend trying to reform the EU ETS but completely replacing it with an EU-wide carbon tax.

<sup>11</sup> http://climateandcapitalism.com/?p=4363

\_

<sup>&</sup>lt;sup>12</sup> http://www.europol.europa.eu/content/press/further-investigations-vat-fraud-linked-carbon-emissions-trading-system-641