ENERGY & ENVIRONMENT

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Climate of Opinion

The Stockholm Network Energy and Environment Update

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Welcome to *Climate of Opinion* – Helen Disney and Paul Domjan[1]

This month's much-anticipated edition of *Climate of Opinion* builds on a recent Stockholm Network Amigo Society event, which looked at emissions trading schemes. Howard Chase provides us with the energy industry perspective on controlling climate change through technological solutions. Meanwhile, Hannah Wanjie discusses the possibilities of linking up with other trading schemes, from her position as an economist within the Department of Environment, Food and Rural Affairs. And to finish, Kenneth P. Green of the American Enterprise Institute takes a look at the problems surrounding one of the alternatives to the ETS, subsidies.

If you have any comments or recommendations about *Climate of Opinion*, or would be interested in contributing an article for a future edition, please contact Simon Moore at simon@stockholm-network.org. We hope you enjoy this newsletter.

Technology Can Triumph – Howard Chase[2]

This is an important year in the evolution of energy policy. Of course, it is becoming increasingly clear that energy policy now means, to a large degree, environmental policy and vice versa.

I should declare BP's position in regards to the broad direction and content of the EU energy and climate change package. In any strategic analysis you are taught that what you accept as given is vitally important to the rest of your analysis and it is import to say what BP accepts as given in the debate.

We accept as given the IPCC scientific assessments. We are not in the business of re-examining the scientific basis for climate change policy. Clearly the details, speed and extent are all important but, as a company, are we prepared to accept this as a starting point for the debate.

We accept the conclusions of the Stern Review. Although there are different views on methodology, how he got there seems immaterial, even if he got to the right conclusion for the wrong reasons, or despite the wrong analysis. This is secondary to the fundamental conclusion; that climate change is important and action is needed.

What type of action? Again, we accept as given an objective to try to constrain global temperature rise to 2˚C, meaning CO2 stabilisation by 2020 and falling thereafter.

We accept the case for European leadership. We believe that this is not an issue that is going to be resolved by national entities acting alone; in Europe there needs to be a joined-up approach. In a European context, the issues need to be addressed at a European level.

Finally and importantly, whichever policy methods we are looking at, they will work to the maximum extent possible if they are translated through the operation of the markets.

Technology

It seems clear that the solutions to the problems that we are looking at are technological in nature. We need to see technology deployed in a way consistent with our economies that will give us energy with lower CO2 net emissions. Without the technology you certainly are not going to address the issue, except by destroying demand and consequently standards of living.

The good news is that the technologies exist. Work done at Princeton and elsewhere which modelled scenarios leading to the right solutions is based on essentially existing technologies. Technologies exist on the supply and demand side that would bring global CO2 emissions under control. Therefore the policy challenge is not to invent new technology but to deploy

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technology in a beneficial way. These huge transitions are not without cost, but that is a different question.

A Negative Market

The construction of a market whose objective is to lose something is an order of magnitude more difficult and challenging than a market whose objective is to gain something. Sometimes that difficulty is often glossed over in the use of words like 'market solutions'. If the principal problem is the deployment of technology, then pricing (in this case of carbon dioxide and other greenhouse gases) is a necessity. Without it, you cannot make economic decisions. However, on its own, pricing may be insufficient to solve the problem.

Pricing should result from tradable market systems, but the eventual emergence of a global market pricing mechanism for carbon dioxide does not mean that you need a single global market design. The evolution of regional market designs, in particular the European market, and how they connect with each other, seems to mimic how global stock markets work, whereby one can arbitrage stocks from one market to the next. A single global carbon market system may not be necessary.

In this context, therefore, BP sees the diversity of national and regional responses emerging in response to growing political and public concern, not as a problem but as a productive and creative part of the development of solution sets. So the fact that you have legislative initiatives and technological initiatives, in the United Kingdom which at this stage are different from those in Germany or the United States is not a problem, but a vital part of the evolution of solutions. We should be careful not to allow theoretical concepts of order and tidiness to obstruct the evolution of solutions at this stage of the process.

Because of the negativity problem, the existence of targets must be the starting point for pricing carbon dioxide. Therefore, we believe that the setting of the unilateral greenhouse gas reduction targets by 2020 is essential to carrying over emissions trading from 31 December 2012 to the 1 January 2013 (when Kyoto and the European emissions trading scheme expire); without the 2020 target there is no incentive to cross that bridge. What business needs is a predictable route from here to there. It is only 12 ½ years until 2020. If it is going to take another year or two to work through the current round of negotiations at Commission and member state level, then we are essentially saying that we have ten years to meet the 2020 targets. We need this bridge over 2012 and the sooner the shape and intent of that bridge becomes clear, the sooner we can make the critical business decisions.

It cannot be overlooked that technology is not going to impact the climate change problem unless it can be deployed at a material scale. The scale of the problem is huge and we need solutions which can be implemented at a scale which can take carbon dioxide off the market in correspondingly significant quantities. Therefore, the notion of materiality seems to be central to the whole debate. It does not mean that the government should pick the technological winners, but it does mean that the regulatory system and the incentives on offer need to be directed at getting technology to the market at scale.

There is a second reason why that is advantageous, which is that by getting technology to the market at scale you will drive the cost down the cost-curve. This is where I think we get to the tricky question: is market pricing enough?

In the long-term the answer will be yes. However, because the urgency of the problem means that technology needs to become viable, and costs need to be brought down, then market pricing is probably not in itself enough, and you need transition measures to get this technology into play. This is what has been happening with wind, with solar, with bio-fuels; it will need to happen with carbon capture and storage and in some member states it will need to happen with nuclear.

Creating a framework

A colleague of mine pointed out a useful sound-bite, which is "there are only twenty-five countries which account for 80% or more of present and future carbon dioxide emissions'; a classic case of the 80/20 rule, if ever there was

one. This leads to an important, simple, but nonetheless far-reaching conclusion, that these are the twenty-five countries you need in the eventual solution basket. Of those, the United States is critical.

Furthermore, whatever policy approach is taken needs to be shaped so that China and India can come on board in due course. This is a relatively simple strategic objective, but it is by no means a trivial thing to accomplish. It means that we need an approach from the EU which is fundamentally inclusive rather than prescriptive. So, although it is extremely valuable for the EU to address its own energy and climate change contribution through requirements to implement the emissions trading scheme, the EU should accept that this is a method suited to its circumstances and may not be universally applicable. The missionary approach of saying "this is the only way for other people to solve the problem" is not going to win converts and may be the wrong economic answer. Nevertheless, we can need to be both confident and modest enough in Europe to say "we have made a good start".

ETS: The Next Steps – Hannah Wanjie[1]

The EU emissions trading scheme has been a good start, albeit a gentle start. Although Phase I prices are relatively low, it has taught us a lot of lessons for Phase II and Phase III, post 2012, and the opportunity that we will have to review the directive for the EU ETS. The UK has so far made lots of public statements about what it thinks the future of the EU ETS should be. We made a statement at the launch of the Stern Review about our view of the future of the EU ETS. In April 2007, alongside a group of British businesses, we issued a UK manifesto regarding our joint vision for the EU ETS. The review of the directive will be happening very soon and we want to ensure some certainty regarding what will happen post-2012; we want the EU to support the negotiations for post-2012 planning, but also to provide some element of demand, to show that we are committed to reducing emissions. That aligns well with the announcements that were made in the spring council regarding the 20% unilateral goal for reducing emissions in the EU, and our commitment to increasing that reduction, if other developed countries come on board.

Our priority for the EU ETS review is that it yields a more robust scheme. Therefore, the most important issue is the setting of caps; how we can ensure scarcity so that we have a robust carbon price through the ETS. The length of phases will be important to consider, as will finding methods to bridge the periods of uncertainty across different phases. Decisions need to be made regarding allocation methodology. More thought needs to be given to systems of auctioning, and decisions about the way allowances could be distributed, be it by using historical data or the use of benchmarks. Our preference is for a greater use of benchmarking and auctioning. But we will have to take into account the competitiveness concerns that have been raised by business to date.

We will also be looking at the scope of the scheme, trying to include more sectors (most significantly, transport, including aviation), and more gases. We will also be looking at monitoring and compliance and other technical aspects of the scheme. One of the most important aspects of the scheme will be trying to ensure harmonisation across the EU member states.

Another impending decision will be how to link to other markets that might set up in the rest of the world. There are state-level schemes being proposed in the US, as well as in Australia and New Zealand. Consequently, there is discussion about what Europe's attitude to the third party schemes should be; whether it should tend towards being prescriptive or accommodating. Linking is important because the EU can be a model for other schemes, whilst taking into account those different national approaches. But it can also be important in creating a global price for carbon, something which Stern emphasised very strongly. We have faith in linked emissions trading schemes as a long-term instrument for emission reductions. A lot of analysis about

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linking to date has concentrated on the technical aspects of linking such as the monitoring and compliance requirements that would be required.

But we need to account for the fact that the other schemes that are starting will probably do so relatively gently, as the EU scheme did. But that brings into question whether emissions caps can be made credible, whether they will be tight enough to create a credible price or whether there will be safety valves such as price caps, and what type of effects could these have on the credibility of both external schemes and the EU scheme, if it connects to those other schemes.

While there remains many issues to grapple with I think the overall message is a positive one; the EU wants to link to other schemes and it is important that we learn from each other and exchange our ideas about how schemes can function well.

The Road to Energy Hell is Paved With Good Intentions – Kenneth P. Green[1]

It is rare that one finds a policy concept that unites policymakers not only of the left and right, but between countries, particularly, these days, in the contentious field of energy policy. But there is such a thing, and that unifying idea is the fatal conceit that government planners can outperform free energy markets at finding the sweet spot at which consumer demand for energy is reliably met with supplies reflecting the true costs of production at use. One of the most prevalent mechanisms by which planners choose to exercise their influence over the market is by way of subsidies to various forms of energy. Such subsidies can be transparent, such as when a government gives a straight price subsidy or tax reduction for the use of certain kinds of energy or energy technology. Or, subsidies can be less transparent, such as when a government regulation creates an artificial market for less-competitive forms of energies.

Energy subsidies have become a perennial favourite in the United States. The last basket of energy subsidies were given to the corn industry, via Congressional mandates for the use of ethanol in gasoline. The hottest subsidies discussed today are headed toward the coal industry, which is salivating over the prospect of a lavish spread of subsidies heading their way under the banner of "energy independence." As the New York Times recently reported, the U.S. Congress is considering loan guarantees for coal-to-liquid plants; tax credits for the sale of coal-based-fuel; automatic subsidies to keep coal-based liquids competitive if oil drops below $40.00 per barrel; and allowing the air force to sign 25 year contracts for coal-based liquid fuels.

Environmental groups rightly point out that coal use is anything but environmentally benign, and can cause serious environmental harms in both mining and burning. But looking beyond the environmental question is a more fundamental issue: energy subsidies are bad public policy, no matter where they are, which party supports them, or how good the intentions of a government might be.

First, subsidies breed corruption. They don't create incentives for honest people that already have a market-worthy product – such people can already sell their goods into the market easily. Rather, subsidies create a fertile garden for rent-seekers who are unable to sell their goods competitively in a free-market, and prefer to tap the coercive and redistributionist force of government to lever their uncompetitive good into the market at the public's expense. Rather than contribute to overall social welfare by giving consumers the best goods at the least cost, or even maximizing the efficient use of people's taxes, rent-seekers undermine social welfare by foisting inferior or over-priced goods onto the market while taking money from people that could be used for other important purposes. This is a particular problem in countries with relatively weak property rights regimes, and countries with legal institutions insufficient to prevent it.

Second, subsidies are usually inequitable. High gasoline taxes create an incentive that favours new fuel-efficient cars – in a sense, creating a subsidy for high-mileage vehicles. But only people

[1] Kenneth P. Green is a Resident Scholar at the American Enterprise Institute

in higher economic brackets can afford new cars, and poorer people are left to drive less efficient vehicles, and spend more money on gasoline taxes. When the California government wanted to subsidize electric vehicles (EV), they offered over $8,000 dollars to people who leased GM's EV1 – but the only people allowed to do so were households that earned over $100,000 annually, and who had a regular gasoline-powered car as their primary mode of transportation. As if that weren't bad enough, lower-income earning California's non-EV driving taxpayers were out of pocket for a network of $20,000 EV charging stations so celebrity EV boosters could charge up between production meetings.

Third, subsidies pave the way for adverse consequences that inevitably result when planners decide that their few hundred heads are wiser than the nearly infinite number of nuanced economic decisions made by their millions of constituents. As *The Economist* has pointed out, governmental efforts to protect the environment are rife with unintended consequences. Mandating higher fuel-efficiency vehicles led people to drive more, not less. Automobile manufacturers receive subsidies for selling flexible-fuel vehicles that most people never run on anything but gasoline, allowing the company to then sell an SUV that gets ruinous mileage and still maintain their proper "average" fuel economy. The list of perverse consequences of bad energy policy is virtually endless.

Last, but certainly not least, subsidies subvert efficient functioning of energy markets. Free markets, as economics tells us, are the only mechanism that can efficiently determine how much of a given good is desirable at a given price. Just as Soviet planners could not simply determine how many shoes of what sort the people would want in 5 years, politicians cannot determine how many liters of a particular fuel their people will want in 5 years, nor the price they'll be willing to pay. The idea that they can make this prediction is, as Nobel prize-winning economist Friedrich Hayek observed, the fatal conceit of planners.

Everyone wants to protect the environment, and everyone loves the idea of ultra-efficient devices, cutting waste, having stable and affordable energy supplies, and so forth. Many of the people pushing energy subsidies are undoubtedly motivated by the best of intentions. But, just as the road to hell is paved with good intentions, the road to energy hell is paved with subsidies doled out with good intentions. The best thing to do for world energy markets is to strike all energy subsidies, tax the verifiable environmental harms energy creates and let markets sort out the rest.

Microclimates – Top Stories in Energy and Environment

As we go to press, news is coming in of a compromise deal on climate change having been reached at the G8 summit in Heiligendamm, Germany. The statement from the G8 indicates the American plans will be drawn into the large UN context. The declaration includes a commitment to "tak[e] strong and early action to tackle climate change in order to stabilise greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system." However, mandatory cuts of any kind, and particularly the German host's desired target of a 50% cut by 2050 are to be given "serious consideration", falling short of a commitment to emission reductions.

The decision came after a week of back-and-forth during which the Bush administration proposed a post-Kyoto arrangement involving an independent, US-led process for negotiating an agreement. Initial briefings from the White House had also suggested a G8 deal was impossible. Bringing on board major carbon emitters outside the G8, such as China and India, remains an obstacle to further progress.

http://www.g-8.de/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng,property=publicationFile.pdf

Measures also proposed by the Bush administration include a reduction in tariff barriers on environmental technology.

http://www.alertnet.org/thenews/newsdesk/N31192626.htm

Australia has joined the group of recent climate converts, with erstwhile sceptic prime minister John Howard announcing plans for a new carbon trading scheme to be instigated by 2012

http://news.bbc.co.uk/1/hi/world/asia-pacific/6716429.stm

Over the course of 2006, US CO2 emissions declined by 1.3%, while the EU's grew by 1 – 1.5%. Both economies grew over the same period. The White House was quick to tout the findings as a vindication of its policy of voluntary, technological approaches to CO2 emissions, rather than the more heavily regulated Kyoto-based methods favoured by the EU.

http://www.earthtimes.org/articles/show/65758.html

http://business.guardian.co.uk/story/0,,2048733,00.html

The UK government's long-awaited energy white paper was released, and, as expected, it contained provisions making a new build of nuclear power stations much more likely.

http://www.timesonline.co.uk/tol/news/uk/article1828492.ece

A group of five EU countries have signed off on a deal to create a common electricity market by 2009. France, Germany, and the Benelux countries agreed the deal, which was given a guarded welcome by EU energy commissioner Andris Piebalgs. Despite having sought a common internal market for some time, officials are concerned the move is an attempt to undermine measures being undertaken by the EU to break up national energy monopolies.

http://news.bbc.co.uk/1/hi/business/6728345.stm