WILLIAM RAMSAY

Director of the Ifri Energy Program

The commentator just raised the issue of rhetoric versus reality, and it is a good time to take a look at that, given that we are getting into the negotiations in Copenhagen and are supposed to be getting down to brass tacks and dealing with the real issues. Looking at how we have been doing up to now, you can see a lot of political rhetoric and talk of how we have been hitting this or that target. You hear the US talking about its biofuels target and China saying that it will reduce its energy intensity by 20% in four years. There are energy targets all over the place, but the question is how we are really doing in meeting them.

We have to get past this competitive targeting to letting a politician set a 2015 target, but then setting a 2012 target so as to test him inside his political timeframes and see whether he is living up to his commitments. We have heard a great deal of talk of how low energy intensity is working nicely, economies are being de-intensified and using a lot less energy per 2,000 hours of GDP etc. However, carbon emissions are just not dropping. You have heard that they are growing on aggregate, but carbon emissions have dropped in only eight IEA countries in the last 17 years, and those are in Eastern Europe or former East Germany. Nobody is effectively cutting carbon out of their mix.

We have talked in the IEA and G8 about efficiency measures, and you have heard that efficiency is the cheapest, the safest, the cleanest and so on, but it does not happen. Some 25 initiatives announced by the IEA were to be adopted and implemented, and looking around the IEA countries and those outside the IEA who took up these recommendations, it is not happening. We hear a lot of talk, but do not see a lot of action.

You heard Rick Bradley the previous speaker say that a power plant is there for 15 years, but if you put in a new plant in the US, it is likely to last 80 years. A coal plant will continue for 60-70 years, and coal plants being put in now are going to continue well into the century before they will be turned over to new technology. Looking back over the last 30 years of improving technology in coal combustion, we have only moved from 30-33% in terms of efficiency, whereas the state of the art is much higher. Power plants do not turn over once they are built. And by the way, some of the world's best coal capacity is being built in China.

R&D spending is another issue, and we are wondering whether we will have thin-film solar, concentrators, second generation biomass, and whether we will have to use sugar, corn and other things for biofuel. What about carbon capture and storage (CCS)? We are talking about taking 20% of carbon out of the mix with CCS, yet the necessary investments are not being made. We talk about a turning point in our emissions from 2020, but we do not even think CCS will be deployed by 2020. We need to start talking about alternatives to CCS in concrete terms.

Renewables are a favourite topic for every politician. How much will renewables really contribute? You will get an absolute maximum of 50% of global electricity from renewables by 2050, and you will probably get 5-10% by 2030. You cannot spend all your time talking about renewables. You

have to focus on the conventionals, oil, gas, coal, nuclear, and while it may be boring, these are the fuels we will be using for the next several decades, and we have to get them right.

Some of the issues our negotiators will tackle in Copenhagen are pretty tough, and they have been touched on already. One is characterised as carbon equity, or the distribution of carbon emissions per capita around the world. Emissions per capita go as high as 44 tonnes in Qatar to as low as 100 kilograms in Ethiopia or Haiti. How do you bridge that gap, and what is the equity you hope to achieve by 2050? Will everyone be emitting 1.5 tonnes by 2050? I do not think so. We have offset mechanisms in all of our targets, the EU, for example, permitting 50-80%. What is an offset? It means you go somewhere else and find cheaper carbon, buy the rights for the emission, bring it back home and put your factory in place. How much can you do that? You are already skewing the per capita carbon distribution at the end of the period through carbon trading, through offsets, or through other mechanisms designed to give permission to people in industrialised countries who are investing in carbon intensive activities. How is this supposed to work out?

You will hear China saying that we need to make the savings in our own energy systems and should not expect them to provide all our emissions reductions. Therefore, a lot of work has to be done, and we have to think all the time about the measures of equity in our talk of carbon emissions per capita. How do we achieve such things as the Millennium Goals while working towards a more equitable distribution of how carbon is emitted around the world?

There will be a lot of horse-trading in Copenhagen on how much money countries are prepared to spend. The EU is already talking about USD100 billion in financing for technology deployment and transfer. We need to think about how this is going to happen. How much can government budgets take on? Do we expect the US Congress to agree to an assessed contribution of USD100 billion a year for technology transfer? How do we get at this issue seriously?

It will take USD22 trillion to get the infrastructure in place for the energy we need in 2030, followed by another USD10 trillion for lower carbon options, and half of that will have to go into developing countries, where the markets are not mature. The independent investor is not likely to go into developing countries as he does not have a predictable rate base or a guaranteed fuel supply in the power sector. What would make him go in and invest this money, and what do governments need to do to precipitate that? There has to be a major market reform component to this process, and the private sector has to be motivated to become involved.

Regarding institutions and subsidiarity, we do climate change negotiations the way the US does energy bills. You do not even bother with the principles, but stick everything to the energy bill, so that you end up with virtually nothing because there is no way to agree to everything at once. Here we are in Copenhagen, negotiating between 192 countries a climate change issue that has all kinds of social, economic and commercial implications. We need to break this down into manageable bites. The US and China are looking for common ground, such as trading carbon intensity for targeting. Then they take that to the G20, perhaps via the G8, and then take those consensus-building tools into the UNFCC. That makes a lot of sense, as you cannot negotiate a deal between 192 countries.

You use the organisations that are suited to this kind of work. You use the IMF for financial issues, the World Bank for development issues, and the IEA for measurement, policy and benchmarking. We have a lot of mechanisms to build before we can begin to trade carbon and understand what we are trading. What is the value of a tonne of carbon? Whose carbon is it, where is it, and how

can you demonstrate that it has been saved? What are your metrics? We do not have the databases. We need to start by breaking this down into manageable units so that we can actually get something done.

We have to work on trajectories. We all said we would end up at 1.5 tonnes per capita by 2050, but maybe some people will end up at higher or lower levels of emissions. The Indians have done some forward projection scenarios, and their emissions never reach more than 6-8 tonnes per person in that time, but that may mean an overshoot globally. We will have to get practical now. We have been engaged in politics and rhetoric since 1988, and it is now 2009. We have new heads of government, and these governments will approach things differently. This is an opportunity to approach things differently, or at least identify some principles and move things forward.