

**Building the Low Carbon Future
Decentralised and Intelligent Energy Solutions
NEC Birmingham – Concourse Suite
Tuesday 20 May 2008**

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A LOW CARBON EUROPE - A LOW CARBON WORLD

I'm delighted to have been asked to say a few words on behalf of the European Commission and to have been given the opportunity to outline the European background to today's discussions.

I also very much welcome the chance of visiting Sustainability Live later today to see how the public and private sectors in the UK and in the rest of Europe are offering solutions and examples of best practice in response to the challenge of climate change.

Now beyond any doubt, this issue, climate change, represents the biggest threat to life on earth. It is a threat which is with us now and it is growing. Science is telling us the nature of that threat. The European Union, in support of the science, is in the process of setting targets for urgent action designed to avoid reaching an irreversible tipping point. I will talk about those targets in a moment.

Before talking about those targets, let me fill in a little of the policy background from a European perspective.

The challenge to Europe is threefold.

First, it is a challenge of sustainability. Energy consumption is one of the main factors in climate change and makes up 80% of all greenhouse gas emissions in the EU. If we continue as before, by 2030 world energy demand will be 50% higher than today and global CO₂ emissions will have risen by nearly 60%. Europeans are already witnessing dramatic price increases in energy supply.

The second challenge is security of supply. Pressure on global energy resources is intensifying. The International Energy Agency expects global demand for oil to grow by 41% by 2030, with over 70% of this increase in demand coming from developing countries. Rising, volatile prices and blackouts have all shown the risks of being over dependent on oil and gas. If energy trends and policies remain as they are, by 2030 84% of gas and 93% of oil would have to be imported. And oil and gas are largely concentrated in the hands of just a few countries that control them through national monopolies. The EU is increasingly vulnerable.

The third challenge is competitiveness. The EU's increasing dependency on imports of energy makes it increasingly exposed to price volatility, and notably price rises, on international energy markets.

Faced with the need for urgent action, the European Commission published its proposals for combating climate change at the end of January of this year. These contain those targets I talked about and they are right now being considered for final decision by the European Parliament and the Council of Ministers, the Member State lawmakers of the EU. The three key targets are:

1. A target to reduce by 2020 greenhouse gas by 20% as compared with 1990 levels, increased to 30% if there can be a satisfactory global agreement. A 30% cut by developed countries is needed to get global emissions onto a downward track. And it is a 30% cut that we will continue to press for in international negotiations.

2. A target for each Member State to raise the share of renewable energy to 20% by 2020.
3. A target for a 20% improvement in energy efficiency by 2020. This will save the EU around €100 billion and cut emissions by 800 million tonnes. In virtually every area of our lives, we can achieve savings, whether it is in transport, electrical goods, buildings or power generation and transmission. I am sure that some of these possibilities will feature in Sustainability Live today.

None of this came out of the blue. The European Commission consulted in detail all the key stakeholders over a long period before setting out its proposals.

In formulating those targets, we worked on the basis of certain principles:

- Targets must be respected by investors in Europe, by our negotiating partners in the world, and most importantly, by our own citizens.
- Targets must be fair. We know that Member States have different capacities to invest and they start from different points.
- Competitiveness is vital. We have to minimise cost to the European economy.
- We will keep pushing for a comprehensive international agreement to cut greenhouse emissions, including stepping up our own efforts towards a 30% emission cut.
- We must start now. If we want to halve global emissions by 2050, we start today to bring tomorrow's technology on stream.

We considered the costs. The additional effort needed to realise the proposals contained in the Commission's proposals would be less than 1% of GDP by 2020, in the order of €3 a week for everyone. Even on the most optimistic assumptions of the Stern Report, the cost of inaction is very much higher. Nicholas Stern warned that unless checked, climate change could cost up to 20% of GDP.

The damage to our planet would be more than that of two world wars combined. And every day the price of oil and gas goes up, the real cost of achieving the targets falls.

The proposals at European level, put forward by the European Commission at the end of January, are now being considered by the European Parliament and the Council of Ministers of the European Union.

Our proposals are intended to deliver the kind of structural changes that Europe needs to remain competitive. They are intended to inspire Europeans to take the lead. They are intended to kick-start in Europe the development of the low-carbon economy so vital to prevent climate change from reaching dangerous levels.

We hope to see European businesses taking a first mover advantage in a new industrial revolution, unleashing a wave of innovation and job creation in clean energy and high-efficiency technologies as businesses innovate and adapt.

Increasing investment in energy efficiency and new technologies has far-reaching benefits and will lead to a more competitive European economy and to higher growth and more and better jobs. The EU is already the global leader in renewable technologies, with an annual turnover of €20 billion in Europe. The renewables sector alone will bring one million jobs by 2020.

The EU has the chance too to lead the rapidly growing market for low carbon technologies and for decentralised and intelligent energy systems. These are critical to finding the route to a low carbon future.

"Building" is an apposite term in the title of today's conference. The built environment accounts for 50% of greenhouse gas emissions in Europe. Urban communities account for 80% of emissions when you include transport. But where we find the problems, we also find the solutions.

It's vital to explore the applications of ICT and intelligent design in our built environment using smart metres, digital inclusion technologies that self-regulate our heating, lighting and power for the increasing range of electronic goods in homes, and work. No doubt you will have many practical presentations of these today both in the conference and Sustainability Live.

Another crucial issue is that of locally generated energy which can reduce emissions by 50% over central power stations. Locally generated energy is more cost effective and will provide greater security of supply. Local generation should, of course, also include maximising renewables as it becomes more efficient and market competitive. The EU's binding target for each Member State to raise the share of renewable energy to 20% by 2020 will be achievable through a vigorous programme of energy efficiency. With transnational projects and the use of public procurement there will be further economies of scale.

Already many of our northern European towns, cities, housing and other buildings are a rich source of innovation and best practice. In many parts of northern Europe, systems are energy efficient, decentralised and include examples of renewable and intelligent energy systems. May they multiply.

One way in which that might happen is through a wide range of initiatives included in the current EU Intelligent Energy Programme, running until 2013 and now inviting calls for partnership project proposals. With its core budget of € 45 million, it will be the EU's main instrument to tackle barriers to the spread of the efficient use of energy and the greater use of new and renewable energy sources.

You have only to Google "Intelligent Energy Europe" to find it as the first offering.

http://ec.europa.eu/energy/intelligent/index_en.html

Through an estimated 400 separate projects based on transnational partnerships, the programme will:

- foster energy efficiency and the rational use of energy resources
- promote new and renewable energy sources and support energy diversification
- promote energy efficiency and use of new and renewable energy sources in transport

Let me now finish. The challenge of climate change is formidable. I have set out the nature of that challenge in the EU. I have also set out the targets proposed by the European Commission and on which we hope there will be agreement in the European Parliament and the Council of Ministers later this year.

It is often said that the EU's greatest resource is its people. And people have mind. They have hearts. And they have brains. I believe that the collective intelligence of our European brains will be the key to offering a sustainable low carbon future not just for us but perhaps for the world.