

From EU ETS to a global framework – an industry perspective

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The overriding challenge of our time is climate change. The problem originates from the emission of greenhouse gases, primarily carbon dioxide. If we, that is the global community, fail to come to terms with this problem by taking co-ordinated early actions humanity will be forced to make dramatic changes to adapt. The climate change issue is by its very nature global and long-term.

Currently we are on a diverging track – quite the opposite of what is needed!

Exhibit 1

The expected business-as-usual trend for the next 100 years built on expected growth and behaviour and technologies established today will result in an enormous increase of the total emissions.

Unless effective measures are taken, emissions will increase dramatically to levels at which it will be impossible to deal with climate impact in a reasonable way. We need to reduce the rate of increase, stabilise and reverse the trend and then through a major reduction move into the low carbon economy. Emissions from today's industrialised countries must be reduced to only a fraction of current levels by the end of the century. There must be a switch in the global economy from a situation in which emissions are unlimited to a situation in which no, or very limited emissions, is the norm. In fact we have to set a global cap on emissions. This has to be done at the same time as we expect significant growth in the global economy and the global population.

But, and that is important, it is fully possible to reduce emissions substantially without endangering continuous growth and welfare for the many. In co-operation with McKinsey, Vattenfall has analysed the possibilities to reduce greenhouse-gas emissions for the period up to 2030.

Exhibit 2

We have focused on concrete measures and the analysis covers the entire global economy. We have divided the global economy into six sectors and six regions. The potential to abate emissions are described in 3 time frames, 2010, 2020 and 2030. The results are striking. The potential for limiting actual emissions in relation to the current business-as-usual, if no measures are taken, is considerable.

Any reasonable likelihood of limiting the total greenhouse effect to two degrees centigrade requires that the content of greenhouse gases in the atmosphere is limited to 450 +- 50 ppm(v). Annual emissions in 2030 must be limited to 31 billion tonnes carbon oxide equivalents – in other words a reduction of 27 billion tonnes¹ in relation to the business-as-usual development must be achieved.

¹ That is 47 per cent of the total 58 billion tonnes.

The marginal cost of achieving the desired emissions abatement in 2030 will be approximately EUR 40 per tonne of carbon dioxide equivalents, which gives an indication of the expected impact on the price of energy. Estimating the cost to the global economy is of course difficult, but some indication can be found by adding all our identified costs to abate up to 27 Gt of carbon dioxide equivalents. If we set all negative costs (profitable measures) to zero we arrive at a figure in the range of 0.6 per cent of the total global product in 2030. This shows that the cost can be very low if the possibilities identified are realised in a reasonable way. This cost can be compared to the total insurance costs in 2005, which were 3.3 per cent of the total global product.

It is evident that stabilization is fully possible at very limited costs. Markets can supply. But that will not happen automatically. Incentives must be created and, as soon as possible, they must be applied globally.

Exhibit 3

No single technology or solution can fill the gap, but the sum of all the possibilities makes the necessary change feasible. The wise handling of this challenge requires global co-operation on many fronts. It is simply not good enough to identify scapegoats and demand that someone else should solve the problem. No region, country or sector can handle this challenge alone. It is in all our interests to solve this problem, as the negative impacts will affect everyone.

If we are going to handle the climate challenge in a responsible way we must very quickly change direction to a converging path taking the economy from a situation where high emissions are viewed as business as usual to a situation where low emissions are the norm. It will not happen over-night, it will not happen in one single step all over the globe and the initial pace will differ in different regions. But we must start moving in the right direction. Step-wise, incentives must be implemented in the whole global economy.

On the 10th of January the EU Commission presented the Energy Package proposing an energy policy for Europe built on three pillars: sustainability and a low-carbon economy, the internal market and external relations.

Exhibit 4

The European Union's climate policy is built on limiting man-made climate change to 2 degrees centigrade. It is courageous and it is necessary. The next important step is to stimulate other parts of the world to share the European view.

The European Union has also pioneered by introducing emissions trading. There have been and there still are teething problems but we should not let the problems block the view. The basic mechanisms work and emissions trading is a central instrument for integrating climate issues into the world of markets and trade. Teething can be cured by develop market rules and institutions. But to reach the ultimate goal it is necessary to expand emissions trading by including other parts of the world as well as more sectors of the economy.

The European Union has a clear ambition to demonstrate that the developed countries take the lead. The Energy Package will strengthen Europe and it will strengthen the global climate

process. The Summit starting tomorrow will hopefully be an important step. Climate policy must be built on clear goals, well-functioning markets and external relations.

Up to recently, business leaders have been far too passive in the global process. The international business community must rethink the entire climate change issue. The curbing of climate change is not a threat to business but unwise actions and lack of global governance can severely threaten the stability of markets. Business can and must play a central and very active role in setting up the basic rules and regulations. Business and industry can contribute by sharing important experience and know-how. Handling climate change mainly by applying “red tape” will be extremely expensive – high costs and poor results are to be expected. Leading representatives of business and industry have to show leadership by pushing for a market based viable global framework.

Exhibit 5

I have taken the initiative to form a global opinion group consisting of business leaders representing companies committed to taking on responsibility and to combat global climate change. We are prepared to take action now. We need the support of the global community to shape a stable framework, which create incentives for commercial solutions, technological development and market-based investments.

The 3C Business Leaders’ Initiative is an appeal to the global community and all its representatives; let us join forces around a common vision of a low-emitting, sustainable society and let us together create and promote a common roadmap that will, step by step, lead to the realisation of this vision. We are prepared to play a proactive role and to make our knowledge and experience available in order to expedite the conclusion and agreement of a global policy framework required to combat climate change.

A year ago Vattenfall presented an outline of a framework leading to a low carbon emitting society. Implementation means a major shift in the world economy that will ultimately influence everything and everybody.

Exhibit 6

A long-term perspective must be applied stretching up to 100 years. In the long run, the emissions per GDP unit (measured as purchase power parity) will have to converge for all countries. The model is based on the assumption that an overwhelming majority of all countries commit to participate in the system given that they will only face restrictions once the country is wealthy enough in relative terms. The long-term predictability and the flexibility needed for economic growth can thereby be sustained. Most important is that we start now by forming a burden-sharing model built on commitments to long-term reductions.

There are literally hundreds of different areas that have to be explored in order to meet the climate challenge. How can this be done? It is all about incentives and markets.

We must put a price on emissions and thus use the power of the market to initiate and implement change. We already have access to technology that will enable us to reduce emissions, and we can increase the range of technologies available if we are prepared to invest in research and development. The total costs of this “switch” depend primarily on how it is carried out. Abrupt changes that create economic shockwaves, or belated measures in the

form of emergency cutbacks will prove very costly. Sustainable and long-term measures can reduce the total costs to very low levels.

The nations of the world must agree to impose binding limits on emissions. To make this happen, these limits must be designed in such a way that they do not obstruct development or create economic turbulence in any single country, while the impact on international competition must be reasonable and acceptable to all stakeholders. According to our calculations this is entirely possible, but it of course places great demands on the ability of the international community to co-operate. If the leaders of the world fail to meet the challenge in time by steering the markets in the right direction, then the costs will increase and much more drastic measures will eventually be required.

In the long run burden-sharing makes no sense if not an overwhelming majority of all countries take part. On the other hand it is hard to get commitments accepted by the broad public if not others commit as well so we face a chicken or egg problem. But if you get hold of either a chicken or an egg the complementary part can be expected to follow. How can we create the circumstances that lead to joint burden-sharing? Perhaps it is possible to use the same approach as used in other international crises? By inviting Heads of State from all countries to a conference and on the basis of what can be done as shown in the abatement map of their country ask for their contribution? In a way the European Community has already started by proposing a “go alone” reduction objective and at the same time say that a more far reaching objective will be applied if others follow.

To conclude, technology is not an unsolvable problem, given time and incentives, neither is financing. The real challenge of climate change is, fundamentally, political.

Exhibit 7

The time for the next critical step has arrived. By late 2009 or early 2010 at the latest, there must be an international agreement that will replace the Kyoto Protocol. A new regime must be in force from 2013. This must obviously be based on the progress already made, but it must also take a much more long-term approach and be much more effective in terms of the undertakings involved.

Curbing climate change is about combining technology, finance and policy in a wise way and that is an assignment for the international community. Today we can easily identify threats and obstacles but we can also see opportunities and without being over-optimistic, I am sure we will face most of the latter given that wise political decisions are made in due time.