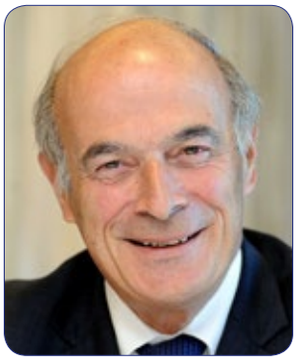

Creating a new platform for global energy governance

By Pierre Gadonneix
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It gives me great pleasure to welcome you all to our 22nd World Energy Congress in Daegu, South Korea!

It is a very special Congress for me personally because it will be my last Congress as Chair of the World Energy Council. It is also special because I see this Congress in 2013 as marking a turning point in the energy sector.

Looking back at the last 6 years of my Chairmanship, the energy landscape has undergone tremendous changes. We see new issues, new constraints, and also most certainly new opportunities. However, the sector is still struggling with some of the same enduring challenges, that we at WEC call the "Energy Trilemma": energy security, environmental and climate impacts, and energy equity.

This changing landscape provides a sense of urgency that we have never experienced before, and that should urge us to drive immediate actions to actively promote a new framework for the governance of energy and climate.

Let me illustrate this with two of the main changes we have experienced recently in the sector:

The shale boom clearly refutes the notion of peak oil

The discovery of new unconventional fossil fuel resources poses many challenges for a world seeking sustainable energy solutions. More precisely, it brings to the fore the issue of what is the right balance, or arbitrage, between long-term choices and short-term costs. As we look to transition to a low-carbon energy system this challenge further highlights the need for public understanding. How to deal with the urgency of climate change mitigation and with the necessity of ensuring economic recovery in a world weakened by an economic crisis in some of the world's major markets.

There is therefore an arbitrage to make between either giving us some more time with the new fossil resources and accepting that the costs of adaptation and mitigation will be higher in the future; or changing our energy systems and behaviours immediately, but at high social costs in the short term. The latter option could, however, make the transition unacceptable to the public and thus reduce the feasibility of delivering on the climate goals. We need to build a consensus on the way forward and build smart policies that deliver for the long and short term.

The solutions ahead

My vision is that we shall use all the newly discovered fossil resources only to moderate the social costs of the inevitable energy transition. To be pragmatic, switching too quickly to a low-carbon energy system might fall short of delivering public acceptability and hence feasibility.

Therefore, I would favour a more progressive approach, but one which also requires us to keep our long-term goal in mind. To summarise, this means:

- Substitute fossil energy with low carbon energies as soon as possible in the sectors where it can be achieved at acceptable costs. Thus, keeping fossil energies for the sectors where no competitive alternative fuel is available to the levels required, such as aviation and transport, or when the fuel is vital to ensure economic growth and energy access.
- Encourage the decarbonisation of our energy systems through improved energy efficiency, competitive renewable energies, nuclear, and the roll-out of carbon capture use or storage technologies.
- Prepare for adaptation to climate change.

This pragmatic view is indeed already at the heart of many countries' energy and climate policies. This, however, leads me to the second major trend I would like to highlight here.

The challenge

The economic crisis, in significant parts of the world, has prompted many countries to put the competitiveness of their economies at the heart of their policies and especially competitiveness of their energy supply.

In developing countries, the current economic context with high oil price volatility and economic depression in many of their importing partners is already having an impact. According to IMF forecasts, growth in developing countries is now 1.5 percentage points lower than pre-crisis trends. Therefore in developing countries there is a need to reduce fossil imports and energy bills, which will help to pull their people out of energy poverty. This may also help to accelerate the move from export-led development to a more domestic consumption-led growth.

It is interesting to note that the global fossil fuel import bill reached US$2 trillion in 2011. In terms of percentage of GDP, the impact of this cost is higher for developing countries than for industrialised ones. This presents a significant challenge, and of course opportunities, as I will set out below.

China spent 2.9 per cent of its GDP on oil and gas imports in 2011. This figure rises to around 4 per cent for India. All major importers – except for the US – will in the future, if

no specific counter-strategy is implemented, experience increasing import costs. This includes Europe, which is set to import 80 per cent of its gas and 90 per cent of its oil by 2035. The US Energy Information Administration expects China to import about 75 per cent of its crude oil by 2035, and consequently increase by 200 per cent its current fossil fuel import bill by that time. This already becomes unbearable for countries, particularly developing ones likes China and India. That is why they are increasingly developing resources locally, deploying technologies according to their "economic merit order" in order to preserve growth. Countries tend to start with the most competitive technologies, like better performing coal power plants, to optimise their domestic coal resources, combined cycle gas turbines and co-generation, but also hydro and nuclear (China accounts for half the world total of nuclear plants under construction).

The US has clearly promoted the local production of shale oils and gas in order to reduce its energy dependence. According to the EIA, the US, which imported 15 per cent of its gas in 2010, will export gas by 2017 and reduce by 10 per cent its total oil imports by 2020. The effect of this is to reduce the country's energy bill and promote competitive energy prices for US industry: US gas prices are now disconnected from oil prices, and are between 50 per cent and 33 per cent of the level in Europe and 20 per cent of that of Asia. Lastly, power prices in the US are now one third of those in Europe.

Concurrently, these countries face urgent environmental challenges and have to make real – though progressive – efforts to contribute to the struggle against climate change and air pollution. Here, again, the approach has been pragmatic and progressive.

Substituting gas for coal for example in the US, along with increasingly strict norms on vehicles' exhaust fumes, has helped the US reduce CO_2 emissions by 7 per cent between 2006-2012.

Developing renewable energies is part of this pragmatic toolbox: deploying wind turbines in very windy locations such as Mexico, Brazil and North-West China, and deploying solar PV where sun is plentiful, including India, Southern Africa and the Middle East and North Africa region. Solar PV can also play a role where the peak demand occurs during the day in summer, as in California, and this technology has a significant role to play in suitable areas which are far from the grid. This pragmatic approach has made China

the world's leader in wind capacity (totalling 77GW) and it is noticeable that the continued surge in new renewable energies has shifted from Europe to the other parts of the world, notably China and the US.

All countries must develop energy efficiency strategies, especially where the potential is the greatest, starting with the industry sector where, as experience in OECD countries tells us, efficiency gains can be cost-effective and relatively easier to implement. New houses and buildings, where costs can be kept in check and transaction costs limited through norms and standards, represent a real opportunity for developing countries whose share of new buildings is very significant.

The threats

Nevertheless, while some countries endorse pragmatic and nationally tailored approaches, some other regions, such as Europe, still try to promote a more ambitious and inclusive, yet also more idealistic, top-down approach. This prioritises the preservation of the global good – limiting climate change – but generates new economic difficulties for the continent and creates room for increasing social tensions within Europe and between Europe and its partners.

More globally, the rise of pragmatic national public policies building on all available assets, makes the failure of multinational negotiations on climate change all the more unfortunate. Growing energy needs, energy insecurity, climate change, but also economic competition, can be open doors to new tensions and geopolitical risks.

Such developments can also create room for improved cooperation with many countries facing common risks and similar economic and technological challenges. Even industrialised countries now face, with their own specificities, the three issues of energy poverty, energy supply at competitive costs, and environmental impact mitigation.

Therefore, I conclude that the only way we can, together, reconcile climate, energy security and sustainable economic growth for all, is by promoting a more efficient governance on energy.

This governance is required globally, regionally and locally. It must recognise the best from all countries' experiences, including those making the energy transition, the technologies it requires and the costs it bears, to be acceptable.

How can we now give concrete reality to this governance?

This is the question I would now like to put to all our speakers and participants in Daegu.

Our WEC reports, which I am proud to launch in the final year of my 6-year mandate, particularly the *World Energy Trilemma*, and *World Energy Scenarios to 2050* reports, will provide a common ground for debate on what could be the possible energy future and what could be the consensual trajectories to reach solutions.

This 22nd World Energy Congress offers a unique opportunity for all stakeholders of the energy sector to meet and exchange visions and practices, during four days of very intensive and interesting sessions, roundtables and exhibitions. More than 5,000 energy leaders will gather from around the world: Let us create a new platform for global energy governance! ❑

The World Energy Council: A brief history

In 1923, a small group of energy experts came together in London to plan a conference which would bring together experts from around the world to help consider how to rebuild the electricity grid in Europe following WWI. The first World Power Conference was then held in London in 1924. It was so successful that the meeting has taken place every three years ever since. Over the years the original purpose was widened, the organisation grew, and the name changed, eventually, to become the World Energy Council. The World Power Conference has evolved into the World Energy Congress and gathers every three years 3,000 energy leaders from 100 countries to assess the state of the energy world.

WEC's work is governed and legitimised through its Executive Assembly (with the principle of "one country one voice", forming an "Energy UN") and its Officers Council, presided over by WEC's Chairman, with the Secretary General in the executive function. Our national committees are chaired by energy ministers, leading CEOs or experts. Our studies are complemented by views from a global energy business leaders group (Patrons Roundtable) and ministers (Ministerial Roundtable) which we facilitate during our World Energy Leaders Summits.