



Putting energy at the heart of the development debate

By Pierre Gadonneix, Chairman, World Energy Council and Honorary Chairman, Electricité de France

It is a pleasure for me to contribute to this Istanbul WELS edition of *World Energy Insight*, the World Energy Council's official publication for our energy leaders' community, providing key insights and strategic views on the global agenda.

As we produced the last edition of this publication for our Executive Assembly in Algeria last year, the pace of change in the energy sector was clearly increasing year on year. A publication such as this is therefore important for our community, as it provides us with an opportunity to take stock, to stand back and consider the progress that has been made in the last 6 to 12 months.

The state of the energy world: An assessment of the last 6 months' progress

As we look to address the issue of climate change, both our *Policies for the Future: 2011 Assessment of Country Energy and Climate Policies* report, launched in November, and the outcome of the COP 17 meeting in Durban last December, confirmed the on-going relevance and increasing urgency of finding solutions to what WEC calls the "energy trilemma". This trilemma implies meeting at the same time the challenges of growing energy demand or energy security, the protection of the environment and especially preventing climate change, and the fight against energy poverty to provide a socially equitable energy system.

The "Durban Platform for Enhanced Action" agreement reached at the COP 17 meeting in South Africa is promising, even though some major countries like Canada have left the process because it prolongs the Kyoto Protocol until 2017. This agreement will help shape the future negotiations, which above all will require countries to set targets for cutting carbon emissions by 2020, including the new big emitters such as China and India. This is the first time that practically the whole world will be in a race towards a low-carbon economy, with huge implications for the energy sector worldwide.

Nevertheless, starting in 2020 means the global community will fail to meet the challenge of keeping the global temperature increase to under +2°C by 2050. This is all the more concerning as we are already on track towards a rise of +6°C. Indeed, as our *Global Transport Scenario 2050* testifies, world transportation is still very much carbonised and this will continue to be the case for the foreseeable future. The reason is that there is still no mature alternative fuel to oil at a time when transportation, be it

aviation or ground transportation, is increasingly growing internationally, driven by double-digit growth in emerging countries. What is more striking is that even with the oil price reaching more than US\$110 per barrel last March, oil demand grew steadily in 2011 and will continue to grow.

On the energy poverty front, the UN Secretary-General, Ban Ki-moon, rightly reminded us in his January 2012 wakeup call in Abu Dhabi that the global population is still growing, and this increases the pressure on social equity in the energy sector. There is a real risk that 2 billion people could be excluded from the opportunities presented by access to energy. WEC, as a truly international organisation, is committed to the development of energy for the greatest benefit of all. We have an on-going commitment in our local and regional programmes aimed at relieving energy poverty. We have publically committed ourselves to the UN's "International Year of Sustainable Energy for All". I believe that WEC has a tangible role to play in promoting the objectives of this initiative and can play a leadership role in the coming years. Initiatives like our *Village Inventory* study will be significant and studies aimed at finding ways to propose smarter and innovative regulations for energy in cities, and especially megacities, will be key in relation to addressing energy poverty. We are uniquely placed to support the UN as the Secretary-General seeks to include energy in the development debate.

In respect of demand and economic growth, we continue to see that the uncertainties keep growing. The crisis in Syria that is putting the price of oil at record levels in March 2012, and the debt crisis in Europe that is threatening the whole development of the region, are two of the many economic uncertainties that are freezing investments decisions and policy changes. As WEC stated in our annual *Assessment of Country Energy and Climate Policies* and *Global Transport Scenarios 2050* study, the energy sector needs long-term vision. When the market, fraught with uncertainties, cannot bring this vision, it is the role of policy makers to provide it. Growing awareness of the energy trilemma will hopefully bring policy makers to deliver more visionary and practical regulations.

Existing paths towards improvement

As countries seek to find the right balance in the energy trilemma we have seen that many governments have reviewed their plans for the utilisation of nuclear in the energy mix. Our perspectives report, *Nuclear Energy One Year After*



Fukushima, was published on the first anniversary of the Great North East Japan Earthquake and is educational. It shows that 50 countries are still building, operating or considering nuclear, many of those being “newcomers”, and that 60 reactors are currently under construction, 20 in China alone, with the majority being in emerging countries. I believe this means two things: first, that climate change is considered as a real threat and that countries envisage nuclear as an efficient means to contribute to curbing climate change, and second, the same countries believe in safe nuclear energy, and are willing to strengthen nuclear safety through reinvigorated international governance.

At the same time, we cannot stress enough the need for the world to develop new renewable sources of energy. To meet the energy supply challenge, Europe, the US and China have developed wind power on a large scale, cumulating in up to 238 GW of installed capacity worldwide, with 97 GW in Europe, including 29 GW in Germany alone. The use of photovoltaic panels to harness the energy from the sun is growing rapidly, reaching 67 GW of installed capacity worldwide, of which 25 GW will be in Germany, and approximately 4 GW in the USA and China each. These energies are destined to account for an increasingly large share of the world’s total mix, provided that they are exploited in countries that have good potential. To ensure that they reach their potential, they will need to get closer to grid parity without subsidy, and the intermittency and storage issues will need to be fully resolved. I believe this is possible with targeted R&D efforts, the right incentives and a clear policy direction.

The world is also endeavouring to exploit the new unconventional resources to relieve the pressure on energy security. However, after recent debates regarding the safety conditions in respect of the exploitation of unconventional sources of energy in Europe, Canada and the United States, we see that 2 states in the USA have decided to impose a moratorium on exploitation. There is clearly further dialogue required in this area and WEC stands ready to play its part in this process. Indeed, two years after the Deepwater Horizon oil spill we were reminded of the inherent dangers in providing all forms of energy with the accident on 28th March 2012 on the Elgin-Franklin platform in the North Sea. Fortunately loss of life was averted

in this instance. However, efforts must continue to ensure the safe exploitation of fossil fuels, be they conventional or unconventional.

Yet, building new infrastructure for power generation or for safer energy exploitation bears an ever growing cost. Underlying much of the debate is the need to finance the huge amounts of investment required to secure the provision of energy from clean and safe supply sources. Albeit another positive outcome of the COP 17 meeting in Durban was the agreement to the format and governing principles of the Green Climate Fund (GCF), a US\$100bn annual fund to support developing countries. Now, efforts must be redirected into securing finance for the fund. During COP17, Germany and Denmark led the way in committing €55m for fast-track finance to be available to the fund from 2012. But the world must go further. As our *Assessment of Country Energy and Climate Policies* report underlines, in the current situation financing will happen only if investments are rightly made according to the inherent value of the technologies, and thus contribute to keeping costs in check.

What else needs to be done? Where else can WEC drive its efforts?

It is clear that the promotion of international trade in relation to energy goods and services would be enhanced by a specific

Almost 40 per cent of Turkey’s annual exports go to fund energy imports



framework. Such a framework would allow developing countries to access clean technologies, while ensuring competition and appropriately rewarding innovation in the sector. To help further this debate we produced a report, *Rules of Trade – Energy Sector Environmental Innovation* which was presented at the COP17 meeting and to the World Trade Organisation (WTO), which was discussed during a meeting I had in March 2012 with Pascal Lamy, the WTO's Director General in Geneva. I believe that the three principles contained in this report (list of energy goods and services, principles for intellectual property rights and border tax adjustment in the energy sector) provide a sound basis to further this debate. WEC is now committed with the WTO to engage in a dialogue with all relevant parties on how to develop energy trade in a sustainable way.

As the speed of change in the global energy sector continues to increase, the relevance of WEC has never been more apparent. WEC's community of leaders and practitioners provides a unique platform for governments, private and state corporations, academia, NGOs and energy-related stakeholders to engage in neutral dialogue to promote an affordable, stable and environmentally sensitive energy system for the greatest benefit of all. We will build on our collaborations with organisations such as the WTO and the UN to encourage a clearer dialogue for sustainable energy. Our latest partnership with the World Water Council (WWC), which was agreed in March 2012 at the World Water Forum, will provide a renewed understanding of the tensions inherent in the energy-water nexus and WEC is committed with the WWC to enhance mutual knowledge and mutual works. Lastly, WEC is fully committed to engage with all countries in the debate on how concretely to enhance the safety of all energies.

These are stimulating times, and as the UN Secretary-General has recognised, WEC continues to provide leadership for the energy sector. As governments and industry explore how to best address the energy trilemma we will work through our extensive member network to facilitate the energy policy dialogue. Our 2012 Assessment of country energy and climate policies report will extensively "open the floor" to questions and suggestions from the industry leaders. This will lead to our 2013 report which will give the opportunity to government leaders to respond and build concrete solutions. This is the real dialogue that WEC convenes to help the energy community together build a more sustainable future. □

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