

## SPECIAL PRE-CONGRESS ISSUE

### Interview with Zhenya Liu, President of State Grid Corporation of China



Mr. Zhenya Liu,  
President, State  
Grid Corp. China

#### **What are the technical advantages of ultra high voltage (UHV) transmission, and what are the major innovations and breakthroughs of UHV transmission in China?**

China is accelerating the construction of its UHV grid. It is expected that by 2020, the hybrid AC and DC grid will be well formed as the backbone network to connect the major energy bases and load centers, and transmission capacity will be more than 300GW. UHV is identified as being 1,000 kV and above in alternative current, and  $\pm 800$ kV and above in direct current. Its advantages include large capacity, long distance, low line loss, less land occupation and robust interconnection ability.

The power transmitted on 1,000kV AC can reach as high as 5,000MW, with a transmission distance of up to 1,500km. The power transmitted on  $\pm 800$ kV could reach a level of 7,000MW, with a transmission distance of up to 2,500km, whilst the line loss of UHV transmission is only about one third of that of a 500kV line.

The UHV AC and DC transmission projects in China have been put into commercial operation, and both are 'firsts of their kind' in the world. The demonstrative 1,000kV UHV AC project, connecting Jindongnan to Jinmen with a total length of 640km, was officially put into operation in January, 2009 and has since operated safely and successfully. The pilot  $\pm 800$ kV UHV DC project, connecting Xiangjiaba Hydropower at the upper stream of Yangtze River to Shanghai, was officially put into operation in July, 2010 and can transport 32TWh of clean energy to Shanghai per year.

In China, we have mastered the key technology of UHV transmission based on the R&D of the major equipment and components. A full-spectrum, functional UHV test base, with the leading overall performance in the world, has been established. We have also structured and completed the whole set of technical standards and specifications of UHV AC and DC.

#### **What role could UHV transmission play in developing energy and dealing with climate change?**

The breakthrough of UHV transmission has significantly improved the competency of power grids to optimize energy allocation. It is conducive to further development and comprehensive utilisation of hydropower, wind power and solar energy. It can also benefit the optimisation of energy structure and layout, and promote diversified, high-efficient and clean oriented energy. It therefore offers a strategic option for China, and the world, to drive innovation and reform in the energy sector.

UHV transmission has become China's important action plan to combat climate change. By our calculations, UHV transmission - with clean energy development as its side effect - could result in a cut of up to 10 billion tons of CO<sup>2</sup> emission. State Grid Corporation of China is willing to speed up the extensive application of UHV technology through international cooperation. We are committed to provide safe, economical, high quality, clean and sustainable power supply and contribute our share to the international community.

## WEC Debrief

### **South African National Energy Association (SANEA) present 'ACTION FOR ENERGY'**

On August 25 and 26, the South African Member Committee of WEC (SANEA) organised and hosted 'Action for Energy' in Johannesburg. Over the two days, 70% of time was dedicated to interactive dialogue between delegates and expert panels. The key messages from the event were:

- The National Treasury said that private funding would be essential for sustained development of electricity infrastructure; the challenge is to secure such funding in an affordable and secure manner.
- The Department of Energy is considering a wide range of scenarios for the integrated plan that will be issued later this year. The extent of renewable options in the plan is a contentious issue.
- The merits of South Africa building additional refining capacity versus importing refined product was discussed at length and the carbon implications of further CTL development was also discussed.

For photos and presentations from the event please visit SANEA's website: <http://www.sanea.org.za/index.asp>

***Please note that there will be not be a September 15 issue of the WEC Inside, due to the 21st World Energy Congress. The next issue will be sent out on October 1.***

## Interview with Roland Schatz, President of Media Tenor / InnoVatio Publishing and Co-Founder of the C-1 World Dialogue Foundation



Roland Schatz,  
President of Media  
Tenor /  
InnoVatio Publishing

### How do you see the 21<sup>st</sup> World Energy Congress impacting on the energy industry?

Montreal could become the turning point for the energy industry. In less than two weeks, top executives of the 3,500 member organisations of the World Energy Council will be meeting with governments and researchers from all over the world to discuss the latest technological advances and more equitable distribution concepts, as well as ideas for the most efficient development of international energy. The BP debacle doesn't fit into this event at first glance. In contrast to the last World Energy Congress, Rome 2007, this year's meeting will see the presence of media from all four corners of the globe. And the media will be looking for answers to those questions that representatives from energy companies would prefer to avoid.

Such avoidance will not be possible in Montreal. The demise of the Deepwater Horizon drilling platform featured as a primetime daily soap opera on every continent. The intensity of the reports, not only on television but also on the front pages both tabloids and business, resulted in no-one thinking solely of BP when hearing mention of the oil crisis. The latest reports on the

Chinese producer CNPC regarding the Dalian pollution emphasizes the volatility of the issue. As Pierre Gadonneix pointed out: "We are all oil men."

Montreal is happening in the limelight of a global interest: before the 2010 FIFA World Cup, headlines focussed on scepticism that energy providers in Africa would be able to manage such a challenge. In July, the world witnessed that special events make for all the extra effort possible and the question marks ahead of the largest sporting event were eliminated. As the continent remains on a growth path there is no reason to relax, but people have now seen that change is possible. The media agenda is also driven by another question: how will the industry contribute to challenges in Haiti, Chile and, now, Pakistan?

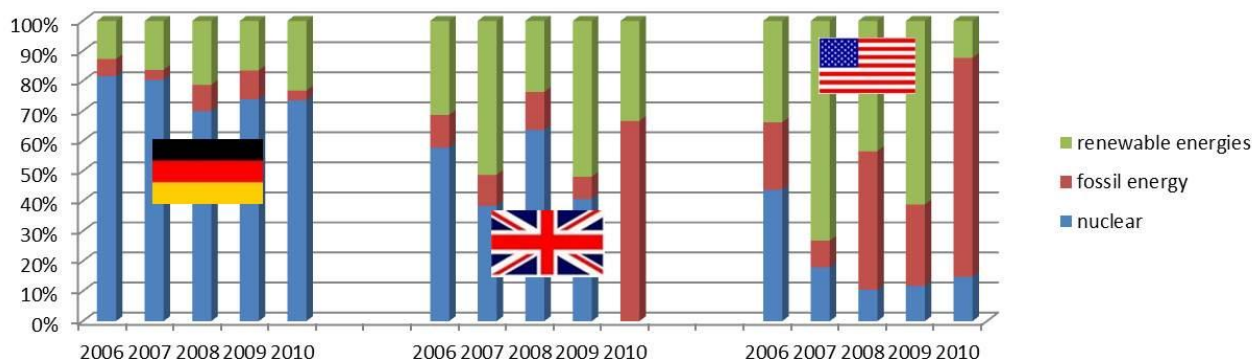
While the main form of aid requests for victims of these disasters is focused on medicine, water and food, WEC members are busy making sure that infrastructure plans are in place. This ensures that people and companies in Pakistan, Chile and Haiti have the same impression that those back in Europe after World War I had, when WEC was founded to reinforce the infrastructure in Europe and became one of the reasons for the unforeseen economic success of the entire region.

In preparation for Montreal, European media are heavily involved in covering the debate on the future balance of the energy mix at home. Angela Merkel just offered her compromise version after facing severe pressure by a massive media campaign involving a broad range of prominent German business leaders. Additionally, the latest OECD report on subsidising both fossil energy and alternative energy was breaking news, while most of the MP's were coming back from summer holiday.

## Supplied by MEDIA TENOR

### 'More debate on fossil energies in UK and USA'

Source: 'International media comparisons of energy types' (Rankings from TV reports in Germany, UK and USA from 2006 to 2010)



'Whilst in Germany the debate on energy concentrates on nuclear and alternative energy, in the UK and USA fossil energies are also reported on intensively. However, CCS could perhaps be better addressed.'

## Congress Update: Interview with Stephane Bertrand, Executive Director of the 21<sup>st</sup> World Energy Congress: Montréal 2010



Mr Stephane Bertrand,  
Executive Director,  
Montreal 2010

**With the opening of the 21<sup>st</sup> World Energy Congress in Montréal fast approaching, how would you assess the significance of this event for today's world?**

During the three years of effort we have put into developing the Congress program and activities, with the collaboration of the WEC national committees, we found that several aspects of the global context are converging to make this event an international milestone in the quest for solutions to energy issues. Firstly, the financial and economic crisis of recent years has demonstrated the growing interdependence of all the countries in the world. Secondly, climate change - both its causes and its effects - has raised our awareness of the need to move toward sustainable development as never before. Lastly, the growing world population and rapid economic development of emerging countries are exerting upward pressure on energy demand.

**What impact do you feel this Congress will have?**

The programme was designed so that discussions would lead to concrete proposals, culminating in a plan of action. The Congress will bring together more than 300 speakers, a large number of experts and some 3,500 participants from all over the world, many of whom play a key role in decision-making on the world energy scene. Furthermore, some 12 complementary events, such

as: the Energy Ministers of the International Organisation of La Francophonie; the FT Energy Leaders' Question Time; the Meeting of the e8 – High-Level Dialogue on Fostering Investment in Electricity Generation in Central and Eastern Europe; the Seminar of the World Bank on Financing Energy Projects; etc., will position the Congress internationally. These events, and the presence of over 60 ministers, will lend significant credibility to WEC. Lastly, our meetings will wind up just two months before the Mexico Climate Summit. Taking all of these factors into consideration, the Montreal Congress will most certainly influence development and energy policies in the coming years.

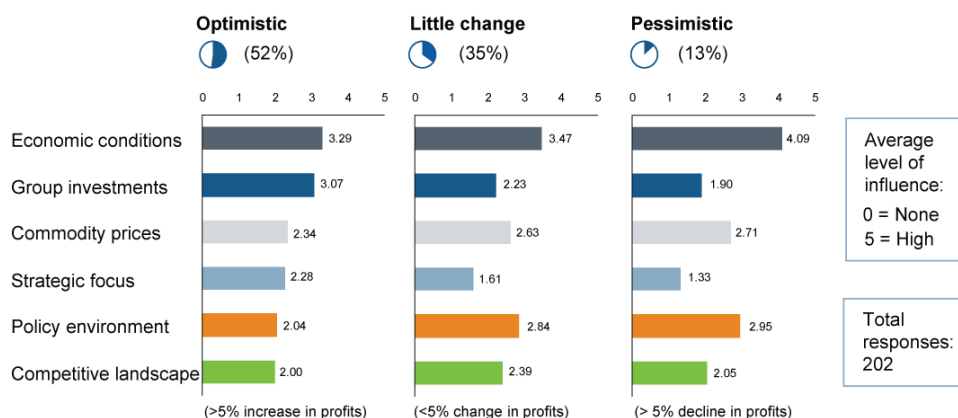
**In your opinion, what sets the Montreal Congress apart from previous congresses?**

In brief, the importance of the issues we are facing, and the global context. Because there are more advanced information technologies and means of communication available, our deliberations will be very accessible and closely followed. Furthermore, in addition to the Exhibition at Montreal's Palais des congrès, WEC-Montreal will have another exhibition site adjacent to the Palais des congrès: Montreal 2010 Expo Energy. As an innovative first, Expo Energy will be open to both participants and the general public, on a daily basis. The Expo Energy promises to be an outstanding showcase for Canadian and foreign industry and will enable visitors to familiarise themselves with recent advances in energy technologies, as well as attend lectures and panel discussions on various aspects of energy, such as transportation, energy efficiency, and consumption.

### Inside Insight

#### Energy Company Business Confidence for 2010

Source: WEC – 'Pursuing sustainability: 2010 Assessment of country energy and climate policy'



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*See you in Montreal!*