

15 May 2012

Welcome to *WEC Inside*, your exclusive bi-monthly update from your WEC network

Interview

WEC Inside speaks to Francesco Giorgianni, WEC Italy Vice Chairman and co-organiser of an upcoming conference, about the potential for smart grids to improve energy efficiency and access

What are the benefits of smart grids?

Smart grids could be described as an upgraded electricity network in which the addition of information and communication technologies (ICT) plus intelligent metering and monitoring systems enables suppliers and consumers to communicate with each other.

They can efficiently integrate the behaviour and actions of all users connected to it. They can help achieve an



Francesco Giorgianni has been Vice Chairman of WEC Italy since 2010. He is also Enel's head of public affairs and senior vice president where he represents the company at various international and Italian institutions.

economically efficient, sustainable power system with low losses, a more secure supply, and greater safety.

At what stage of development are smart grids?

The last two years have seen important regulatory achievements to encourage the uptake of smart grids at both international and European levels. In 2011, the EU Commission submitted to the European Parliament the document, "Smart grids: from innovation to deployment", mainly in response to the urgent need to adopt European standards for smart grids. In Italy, thanks to the investment made by its distribution system operator we are at the forefront of the field with 32 million digital meters installed which have improved network remote control and automation.

Where are the key markets for smart grids right now?

Smart grids have a large role to play in all countries where renewables are increasingly

being adopted. For example, Germany and Japan have put smart grid development at the core of their post-Fukushima energy strategy. The US and South Korea are actively researching and developing smart grid technologies to increase power efficiency and the contribution of renewables to electricity generation. China is focusing on the research, development and deployment (R&DD) of ultra-high-voltage (UHV) transmission technology and flexible power transmission technologies.

What changes will you see in the next five years as developing and emerging economies become ever more power-hungry and urbanised?

Several developing countries (such as China, India, and Brazil) are already seeking to take a step up in developing power grids with higher carrying capacity, greater security levels, and a wider range of resource allocation so as to underpin their socioeconomic goals. In the next few years, I foresee companies and research institutes from developing countries to take a larger role when it comes to forming standards and developing technologies for smart grids.

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Debrief

WEC Peru puts on major national energy forum

WEC Peru co-organised Energía 2012, Peru's 10th International Energy Congress, in Lima on 2-4 May 2012.

The annual event provides a platform for energy executives, specialists, and authorities to discuss the status of and options for the growth and development of the electricity sector. Now in its 10th year, it is considered Peru's most prestigious energy-related event.

This year's event, with the theme of "Strategy and planning for growth", covered a wide range of topics including the global financial crisis and its impact on energy investments, trends in the development of international energy markets, opportunities for electricity connection and interconnection, electricity supply and demand, and Peru's energy plan.

The plenary sessions called attention to the significant challenges posed by the

growth in energy demand and the current bottlenecks in supply. The world financial crisis presents a new set of requirements – but also opportunities – to reform the system and to increase investment in the electricity sector.

WEC Peru Chairman, Guillermo Castillo Justo, moderated a roundtable discussion on corporate perspectives, investment into energy projects, and social responsibility. Castillo Justo served on the event's advisory committee. He said that the WEC Peruvian Committee was pleased to take part in this successful event. "We expect to launch similar events to increase participation and support to the WEC's activities in Peru, under the WEC's objective of promoting dialogue among energy leaders and industry experts on critical developments in the energy sector," he told *WEC Inside*.

Other advisory committee members

Guillermo Castillo Justo, WEC Peru Chairman, speaks at Energía 2012 in Lima



included César Butrón Fernández, President of COES SINAC, the Peruvian independent system operator of electricity companies; Eduardo Zolezzi Chacón, World Bank consultant; Oscar Miranda, Executive Secretary of PECIER, Peru's chapter of its Regional Energy Integration Commission, CIER; and Jaime Quijandría Salmón, from the law firm Laub & Quijandría. ■
More on Energía 2012 on its [website](http://www.wecperu.org).

WEC Peru: <http://www.wecperu.org>

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How could smart grids help improve energy access in less developed regions of the world?

In less developed countries, energy access refers to the problem of affordability. The main issues affecting energy affordability in those countries are the poor interconnection between regions and the lack of local grids and interconnection between them. Smart technologies for decentralised energy production is a good way to address energy poverty in the short term, but in the long

New WEC report on smart grids

The WEC will be publishing a report on innovative financing for smart grids in the second half of this year. Stay tuned.

term having large energy infrastructures is the only way that could guarantee widespread energy access at affordable prices for poor populations. To this end, existing smart transmission technologies could help achieve high-efficiency interconnection between energy sources and load centres. A good example is the potential for large hydro in central Africa to supply its sub-Saharan neighbours.

What will be the focus of the 2nd Smart Grid International Forum?

The Forum, now running for the second time, will analyse the progress in international programmes and projects related to smart grids and smart cities. It will also pay particular attention to the financing of research and innovation programmes beyond 2013 in the EU.

What do you hope to achieve there?

The Forum aims to highlight the economic, industrial and social value of smart grid and smart city projects. At a national Italian level, the event aims to support and showcase the efforts of institutions and local authorities that have joined associations, businesses and universities in effectively addressing the complex issue of making energy systems more sustainable. Clearly, we need a stable and compelling regulatory framework in Europe for smart grids. This is the technology that will enable a truly unified energy market in Europe, putting an end to its current fragmentation into 27 single national markets. ■

The 2nd Smart Grid International Forum will take place on 25–26 in Rome, Italy. It is being co-organised by WEC Italy. Visit the [event website](#) for more details.

A round-up of WEC activities

WEC speaks at UK, Jordan, Canada conferences

Dr Christoph Frei, the World Energy Council's Secretary General, spoke about the WEC Policy Assessment at three recent conferences.

On 3 May he spoke at the **UK Energy Summit**, held by The Economist in London. Dr Frei called for greater emphasis on effective policymaking to encourage long-term energy investment, and reminded the audience of energy businesses and financiers of the huge opportunities for funding energy infrastructure through institutional investors.

On 7 May Frei and Dr Hisham Khatib, WEC Honorary Vice Chairman, gave opening speeches at the **Jordan International Oil Shale Symposium** in Amman. Frei spoke to an audience of policymakers, energy companies, financiers, and scientists about the potential for oil shale to improve

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energy independence for Jordan, which has four times more shale oil resource than conventional oil. Jordan suffers frequent disruptions to its natural gas supplies and spends 20% of its GDP on energy.

At the Jordan event Dr Frei added that impetus towards energy independence requires clear policy support. Furthermore the WEC policy assessment provides a solid benchmark for policy outcomes. Jordan currently ranks 82 out of 92 countries survey in terms of supply–demand balance on the WEC 2011 Energy Sustainability Index. This reflects the high cost of imported energy and the heavy subsidies needed to keep energy affordable. "Our policy assessment provides strong indication that poor energy security is now costing Jordan dearly," Frei told *WEC Inside*. "It can provide countries with the benchmark for comparison with other countries, which they need to balance the energy trilemma."

On 14 May he addressed the **World Forum on Energy Regulation** in Québec, Canada. At the event 600 representatives from 75 countries discussed regulatory challenges and priorities. Dr Frei again highlight-

Christoph Frei speaking at the UK Energy Summit on 3 May in London (Photo credit: Economist Conferences)

ed the importance of balancing the energy policy trilemma in order to attract investors. He also pointed out that in order to maintain investor interest and confidence, there needs to be regulatory consistency in the face of political change and transition, regulatory empowerment which does not yield to conflicts of interest, and regulatory commitment to policy implementation.

Innovation for energy efficiency

WEC Italy hosted the **Conference on Innovation & Energy Efficiency** on 18 April in Rome. The event, co-organised with the Italian Association of Chemical Engineering (AIDIC), drew more than 150 attendees from electricity companies and the chemical and pharmaceuticals industries.

The conference explored the additional industrial efficiency gains achievable through innovative engineering. The opening discussion highlighted the decrease in industrial efficiency within OCED countries in recent years. Another session showcased success stories from Italian engineering companies to highlight the importance of innovation and efficiency as a driver for industry competitiveness.

WEC Italy, in collaboration with the AIDIC, will compile the main findings of the discussion and the papers presented in a publication for wider audiences.

WEC Italy: www.wec-italia.org

New Chair for WEC Jordan

The newly appointed Jordanian Minister of Energy & Mineral Resources, Alaa Al Batayneh, has taken on the role of Chair of the Jordanian Member Committee. ■

Send your news and feedback to:

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Agenda

We invite our members to attend the following events

WORLD ENERGY CONGRESS

World Energy Congress – Theme: “Securing Tomorrow’s Energy Today”
13–17 October 2013 – Daegu, South Korea
web: www.daegu2013.kr

EXECUTIVE ASSEMBLY

WEC Executive Assembly 2012
5–8 November 2012 – Monte Carlo, Monaco
Ori Chandler, chandler@worldenergy.org

WORLD ENERGY LEADERS’ SUMMIT (WELS)

World Energy Leaders’ Summit
6 February 2013 – New Delhi, India
Ori Chandler, chandler@worldenergy.org
John Bourne, bourne@worldenergy.org

WEC REGIONAL FORUM

FOREN 2012 – Central and Eastern Europe Energy Forum
17–21 June 2012 – Neptun-Olimp, Romania
National & Regional Energy Policies and Strategies; Security of Supply. Organised by the Romania National Committee. Contact: Dr Gheorghe Balan; Tel: +40 21 211 41 55/56; e-mail: foren2012@cnr-cme.ro
web: www.cnr-cme.ro/foren2012

Bi-regional Forum North America, Latin America and the Caribbean
6–7 December 2012 – Cancun, Mexico
Ori Chandler, chandler@worldenergy.org

Africa Energy Indaba 2013
18–21 Feb 2013 – Johannesburg, South Africa
Ori Chandler, chandler@worldenergy.org

[More on the WEC events webpage](#)

2014 Executive Assembly update

As of the bid submission deadline of 30 April, we have received a bid from our Colombian Member Committee to host the 2014 Executive Assembly in Cartagena. The site of the 2014 EA will be confirmed at the Executive Assembly in Monaco this November.

WELS Istanbul summary

A summary of last month’s WELS will be available next week on the WEC website.

Inside Insight

Carbon capture and storage – legal framework development and supply chain perspectives

The recent opening of world’s largest carbon capture and storage test facility in Norway has highlighted the vast potential of the technology but also its cost. A collection of papers from WEC Italy offers insights into the policy, supply chain, and market contexts

Carbon capture and storage (CCS) is an important tool that allows countries to diversify their energy mix while reducing their environmental impact. It could considerably reduce CO₂ emissions from a variety of sources including coal- and gas-fired power plants, which have served as an important source of reliable and affordable energy but have also been the largest contributors to greenhouse gas emissions.

Widespread and cost-effective deployment of CCS will occur only if technology is commercially available, an appropriate supportive policy framework is in place, and stakeholders – including the public – are properly informed about the technology.

In the next few years, achieving affordability of CCS technology will be even more crucial considering that public spending in developed countries will be mainly directed towards solving economic issues. This should also lead policy-makers to plan for CCS initiatives under an adaptive resource management structure which can rechannel public investment programming as new information appears on CCS economics and finance, thereby achieving resource savings.

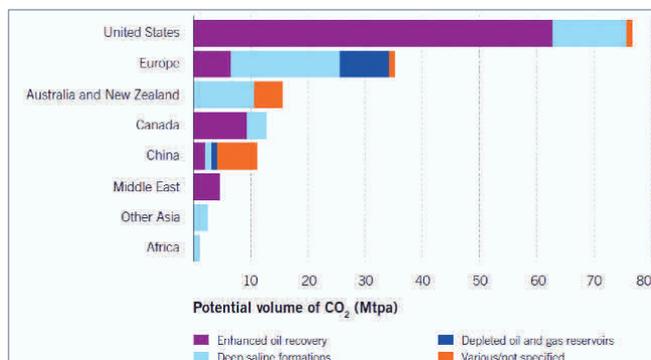
In 2011, 11 EU Member States transposed the EU directive on the CO₂ geological storage which provides a clear

framework for storage activities. Moreover, governments in other regions around the world are implementing a legal framework in support of a large deployment of CCS pilot projects.

Public acceptance remains a significant issue. Only 2% of EU inhabitants have a general knowledge of CCS technology. Public acceptance is also posing serious problems to several EU Member States in the transposition of the European directive on geological storage of CO₂.

The book “Carbon Capture and Storage – Legal Framework Development and Supply Chain Perspectives” surveys the technological, market, and policy developments for CCS worldwide, opportunities and challenges for business and supply chains, plus the status of CCS in Italy. It is a collection of papers from the speakers of the CCS conference organised by the World Energy Council Italy (the Italian National Committee of WEC) and the Italian Association of Chemical Engineering (AIDIC) in October 2011.

For a PDF of the publication, please contact Giovanna Ruggeri, WEC Italy, on +39 06 51605091 or giovanna.ruggeri@wec-italia.org



Potential volume of carbon capture in different countries.
Presented by B. Peglar at the Carbon Capture and Storage Conference organised by WEC Italy, 18 October 2011

Member Committees’ bulletin board

WEC Colombia

COCME, the WEC Colombia committee, will be co-hosting the 2nd Technical Conference on Advanced Technologies in Energy Systems in Medellín on 8 June. For more info click [here](#) (website in Spanish only).

WEC Colombia: www.cocme.org

Bulgarian Energy Day

WEC Bulgaria will be an official partner for the Bulgarian Energy Day, to be held on 4–5 June in Sofia. This year’s theme is “Transparent Energy for a sustainable economy”. For more info visit the event [website](#).

WEC Bulgaria: www.wec-bulgaria.org

WEC Croatia invites papers

The Croatian Energy Association is inviting paper proposals for its 21st Forum, to take place in Zagreb on 23 November. This year’s theme will be ‘Reducing CO₂ emissions by 80% before 2050 – reality or utopia?’. Paper registration deadline is 15 July. See the Forum [flyer](#) for more details.

WEC Croatia: www.hed.hr