

September 1, 2011

An Interview with Dean Oskvig, President and CEO of Black & Veatch.



Dean Oskvig is President and CEO of Black & Veatch's global energy business. Black & Veatch provides comprehensive energy, water, telecommunications and environmental infrastructure solutions for clients worldwide.

This issue is not confined to North America. In China, for instance, intensive industrial energy demands, in particular, are in direct conflict with the supply challenges where serious water scarcity challenges are being faced. One problem is that the Chinese don't have enough water to mine, process, and consume available coal reserves and still rapidly develop their modern cities and manufacturing centres.

While many regions of the world are facing severe water shortages, proven technologies exist to overcome this challenge. The use of air-cooling, recycled or reclaimed water and potentially water desalination, all provide avenues for meeting a region's need for both water and power.

In consideration of the water challenge you described, in addition to carbon regulations, what will the future energy supply mix look like?

The energy supply mix of the future must be wisely structured to make use of all our resources, from renewables to gas to clean coal. We will depend on coal and other fossil fuels for the foreseeable future, even as we push forward with utilization of lower carbon energy sources. Much time and money investment will be needed to deploy technologies that make the use of these abundant fossil fuels environmentally sustainable. This means we must figure out how to greatly reduce greenhouse gas emissions and water use in a manner that enables the technology to be commercially viable.

What does Black & Veatch hope to gain from being a WEC Global Partner?

We will gain better insights into growing challenges such as the nexus of energy and water, and work with global partners to develop solutions. Being a member of WEC gives us the opportunity to share best practices; lessons learned and develop common approaches to common problems.

What is a common challenge across your global client base?

What we call the "nexus of energy and water" is among, if not the, most common challenge for our clients worldwide. There are many factors that compound this issue, among them are a growing population's demand for both energy and water; thermal power generation's dependence on water for cooling; and competition with agriculture, industry and potable water consumers.

Early this year, Black & Veatch released its Strategic Directions in the Electric Utility Survey results. This survey serves as a window into the mind of U.S. energy industry leaders, with more than 700 participants responding to the survey. Survey results demonstrate the true importance of water's impact on the industry. For the first time, water supply was ranked as the top environmental concern – edging out carbon legislation and nuclear fuel disposal – among all survey participants. Water issues also ranked high in other operational and business management categories.

WEC Debrief

SANEA: Shale Gas in South Africa - Opportunities and Challenges; August 17 2011

Bonang Mohale, the Chairman and Vice President of Shell South Africa (Pty) Limited addressed about 90 attendees at the South African National Energy Association (SANEA) Cape Town event in August 2011. In his presentation Bonang explained that since future energy demands of the world are expected to continue to rise, that natural gas is more effective than coal for power generation in terms of CO2 emissions and that the Energy Information Administration (EIA) estimates put the shale gas resource in the Karoo at 485 tcf, Shell believe it is in South Africa's interest to open up for exploration in order to understand the resource better, both in terms of its potential and how it can be developed.

Should the initial Shale Gas exploration be successful, then Shell will evaluate the possibility for development and production of the resource. Shell's view is that the activities will have a reasonably small footprint and will not have a significantly negative impact on the farming communities. Bonang pointed out that other than the nuclear option, South Africa does not have any other low carbon energy sources for large scale base load power generation.

In response to community concerns in relation to land and water use, contamination of aquifers, traffic, noise and air quality due to emissions Bonang made the following commitments on behalf of Shell:

1. Shell will not compete for water resources with the needs of the people in the Karoo i.e. no one will go short of water due to the Shell operations
2. The facturing fluids used at each location will be disclosed
3. Water will be conserved and recycled
4. Local experts will be consulted

Shell South Africa (Pty) Limited is a Gold Corporate Member of the South African National Energy Association (SANEA).

WEC Agenda

We invite our members to attend the following events:

Sept 9th 2011, Paris, France

Economie des Energies : prix et incertitudes

This meeting will be chaired by Marcel Boiteux

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Contact: cfe@wec-france.org

Sept 14-16th 2011, Rio de Janeiro, Brazil

World Energy Leaders Summit

Contact: John Bourne

Email: bourne@worldenergy.org

Tel: 0207 734 5996

Registration website:

<http://www.wec-wels.com/>

October 31 - November 2 2011, Houston, Texas, USA

Houston Business Forum

'The Global Integrated Energy Business'

Contact: Barry Worthington, United States Energy Association

Tel: 202-312-1230

Email: bworthington@usea.org

November 20th-24th 2011, Oran, Algeria

2011 Executive Assembly

Contact: Debbie Best

Email: best@worldenergy.org

Tel: 0207 734 5996

Registration website:

<http://www.wec-oran2011.dz/>

For further events please check the [WEC website...](#)

Inside Insight

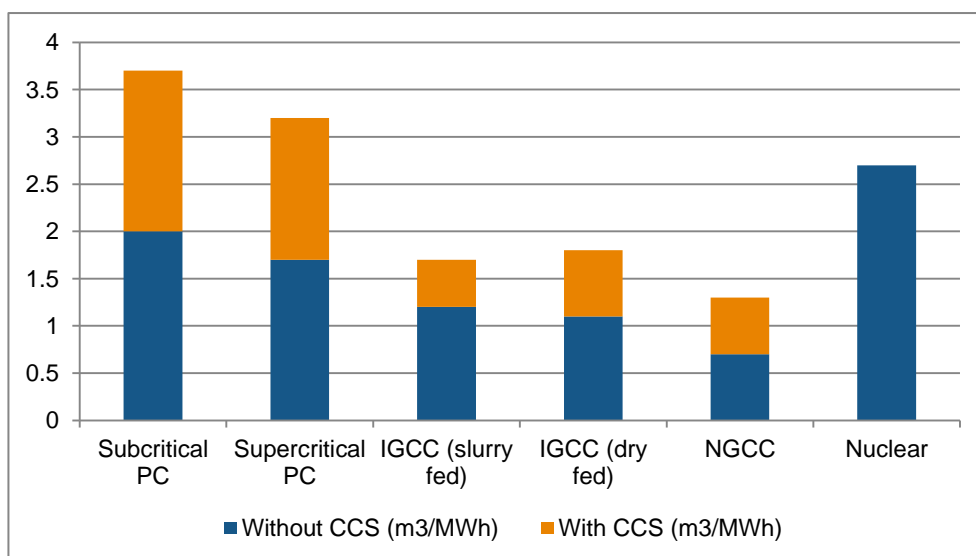
Energy-water nexus and carbon capture and storage

The development of carbon capture and storage (CCS) technologies is driven by the need to mitigate climate change resulting from the combustion of fossil fuels (IPCC, 2007a). They have the potential to achieve substantial reductions in global energy-related CO₂ emissions, if deployed at a significant scale, in a timely manner, and at competitive costs needed to attract investments (WEC, Carbon Capture and Storage: a WEC 'Interim Balance', 2007).

Utilizing CCS technology can reduce emissions by 80–85% (WEC, CCS, 2007), but capture not only requires additional energy, which reduces overall efficiency, but also more water, in some cases significantly more.

Assuming that CCS facilities could be added to all existing and newly built power plants over the next 25 years, overall freshwater consumption in thermal electricity generation would be approximately twice as high as without CCS, but would have an enormous influence on CO₂ emissions. *Source: World Energy Council: Water For Energy 2010*

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Graph source: Water consumption for thermoelectric power plants (DOE-NETL, 2008)

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