

## “Offshore Wind China 2010”

### *Norway and China – market opportunities and industrial collaboration*

Radisson Blue Royal Hotel, Bergen, 15<sup>th</sup> and 16<sup>th</sup> March



China has vast offshore wind resources, estimated at 750 GW. The National Development and Reform Commission (NDRC) is currently drafting a new energy development stimulus plan, which will be released during the first half of 2010. According to the new plan, China is aiming to have 150 GW of installed wind power capacity by 2020, of which 30 GW will come from offshore wind farms.

Off-shore wind power gives rise to a range of technological and operational challenges that differ significantly from those onshore. Norwegian companies have a strong position in the development and installation of offshore facilities in Northern Europe, typically in collaboration with other European partners. Co-operation is also taking place with Chinese companies, but there is a potential for enhanced collaboration.

To explore this potential, the Norwegian Consulate General in Guangzhou, along with WWF and Innovation Norway, is organising a seminar on offshore wind in Bergen 15<sup>th</sup> to 16<sup>th</sup> of March 2010 at Radisson Blue Royal Hotel. The seminar will present Norwegian knowhow and technology to Chinese stakeholders, as well as presenting the opportunities in the Chinese offshore wind market to Norwegian companies.

A Chinese delegation of several leading energy companies as well as Chinese authorities engaged in the development of offshore wind will participate in the seminar. The delegation is lead by Mr. Li Junfeng of the NDRC (National Development and Reform Commission) and CREIA (China Renewable Energy Industry Association). **RSVP** to Rasmus Reinvang [reinvang@wwf.no](mailto:reinvang@wwf.no) by 5<sup>th</sup> March.

The seminar is the first leg in a two-step effort to promote Sino-Norwegian collaboration in offshore wind power. In addition to the seminar in Bergen, Norway is also co-organising **Offshore Wind China 2010**, which will be held in Shanghai 7<sup>th</sup> to 9<sup>th</sup> of June. This conference is the most important event in China in the field of offshore wind in 2010, and will feature an extensive programme covering all aspects of the sector. The conference also includes an exhibition area, where Norway will have a national pavilion. Norwegian companies and institutions are also welcome to sign up for this event. Please contact Pål Arne Kastmann at [paka@mfa.no](mailto:paka@mfa.no).



**For queries please contact:**

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## Programme, 15<sup>th</sup> March

09:00 - 09:30	<b>Registration</b>	
09:30 - 09:45	Opening remarks	<b>Ms. Sigrid Hjørnegård</b> Deputy Minister Ministry of Petroleum and Energy
09:50 - 10:20	China's booming offshore wind sector, the regulatory framework and the renewable energy stimulus plan	<b>Mr. Li Junfeng</b> Deputy Director General Energy Research Institute NDRC
10:25 - 10:45	Norway's potential as technology provider for global sustainable development	<b>Mr. Rasmus Hansson</b> Secretary General WWF Norway
10:50 - 11:05	<b>Coffee Break</b>	
11:10 - 11:30	Renewable future – new industrial co-operation	<b>Ms. Åslaug Haga</b> Project Manager, Renewable Energy Federation of Norwegian Industries
11:35 - 11:55	How does the Norwegian offshore cluster match the Chinese offshore wind market?	<b>Ms. Rachel Enslow</b> Wind Project Manager Azure International
12:00 - 12:20	The pros and cons of doing business in China for technology companies: Facilitating Sino-Norwegian industrial collaboration	<b>Mr. Pål Kastmann</b> Consulate General Guangzhou <b>Mr. Geir Haugum</b> Innovation Norway Beijing
12:20 – 13:45	<b>Lunch</b>	
13:50 - 14:10	The future of offshore wind in China - Longyuan's perspective	<b>Mr. Yang Xiaosheng</b> Chief Engineer Longyuan Power Group
14:15 - 14:35	The Norwegian experience: The Sheringham Shoals and Doggerbank Offshore Wind Farms	<b>Mr. Knut M. Aanstad</b> Head of Portfolio and Project Development, Wind Power, TNE New Energy Statoil
14:35 - 14:55	China's challenges in developing offshore wind farms – Guohua's perspective	<b>Mr. Gao Hui</b> Deputy Chief Engineer Guohua Energy Investment Corp

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15:00 - 15:20	Norwegian offshore wind industry and R&D centers	<b>Mr. Ivan Østvik</b> VP Business and Project Development Norwind
15:20 – 15:35	<i>Coffee Break</i>	
15:40 - 16:00	Sinovel's strategies for offshore wind: Project development and technological collaboration	<b>Mr. Tao Gang</b> Group Vice President Sinovel Wind Group Co. Ltd.
16:05 - 16:25	Transmission, grid connection and cabling solutions	<b>Mr. Olivier Angoulevant</b> Nexans Norway
16:30 - 16:50	Turbine development at Guodian United Power and the challenges going offshore	<b>Mr. Sun Lixiang</b> Deputy General Manager Guodian United Power
16:55 – 17:00	Concluding remarks	Consulate General Guangzhou
17:00 - 18:00	<i>Drinks and socializing</i>	

## Programme, 16<sup>th</sup> March

09:00 - 12:00	<i>Business to Business Meetings</i>	
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## Key note speakers

### Ms. Sigrid Hjørnegård:



Deputy Minister of the Norwegian Ministry of Petroleum and Energy. Ms. Hjørnegård has previously held leading positions in several ministries, including the Ministry of Agriculture and Food. She holds a master's degree from the Norwegian University of Life Sciences, and has a background as Director of Information at the Norwegian Farmers' Association.

### Mr. Li Junfeng:



Deputy Director General of the Energy Research Institute (ERI) of the National Development and Reform Commission (NDRC). Mr. Li is the chief author of the Chinese Renewable Energy Law, as well as the Renewable Energy Planning and Development Strategy and China Wind Power Report 2007 and 2008. In addition, Mr. Li holds central positions in several institutions within the field of renewable energy – as Secretary General of China Renewable Energy Industry Association (CREIA), and as Vice Chairman of the Global Wind Energy Council (GWIEC), to mention a few.

### Ms. Åslaug Haga:



Project Manager at the Federation of Norwegian Industries (Norsk Industri) in the field of renewable energy. Åslaug Haga has a political background from the Norwegian Centre Party, serving in the Norwegian government twice. As part of this work she has held leading positions in several ministries, lastly as Minister of the Ministry of Petroleum and Energy. The Federation of Norwegian Industries has approx. 2,000 member companies with approx. 110,000 employees.

### Mr. Rasmus Hansson:



Secretary General of WWF Norway. Rasmus is a polar bear specialist and MBA, previously Director of the environment programs at Norad and at the Norwegian Polar Institute. WWF is the world's largest independent environmental organisation with around 5 million members and offices in more than 40 countries incl. China.

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## Company profiles:

**Energy Research Institute (ERI)**  
**National Development and Reform Commission**  
国家发改委能源研究所  
[www.eri.org.cn](http://www.eri.org.cn)



Established in 1980, ERI is a national research organization conducting comprehensive studies on China's energy issues including state macro energy economies, regional energy economies, energy industry development, energy technology policies, energy supply forecast, energy security, energy and environment, energy conservation and enhancing energy efficiency, renewable energy and alternative energy development, etc. ERI provides reference and suggestions to Chinese government in the above fields. ERI employs 100 staff and supervises 6 research centers.

At the same time, ERI actively cooperates with international organizations such as IEA, IAEA, UNDP, WB, ADB, GEF and establish research links with R&D institutes in the US, European Commission, Japan, Korea, Russia, India, etc.

### Longyuan Power Group Company

龙源电力集团公司  
<http://www.clypg.com.cn>



An important subsidiary of China Guodian Corporation, one of the big 5 state-owned power giants in China, Longyuan is the most active player in the Chinese wind power industry. It has been active in the industry since its infancy, and has set a target of 3 - 4 GW by 2010, and 7 GW by 2020. Longyuan has installed 1,033MW in 2008 cumulatively 2,181MW. In 2009 at least 1,000MW has been added to its portfolio. Longyuan uses a fairly diverse portfolio of turbines, but has preferences towards Gamesa and Goldwind turbines. Being the No. 1 wind power developer in China, Longyuan also has plan to develop wind power project overseas including South Africa.

### Shenhua Guohua Energy Investment Co. Ltd.

神华国华能源投资有限公司  
[www.guohua.com.cn](http://www.guohua.com.cn)



Established in 1998, Guohua is the fully-owned subsidiary company of Shenhua Group Co., Ltd., the largest coal producer in the world. With a total of 2600 employees Guohua is primarily engaged in wind power generation and has set up 9 wind power development bases in Hebei, Shandong, Jiangsu, Inner Mongolia and Northeast China. By the end of 2009, Guohua became one of the industry leaders with wind power installation capacity reaching over 1.4GW. Guohua has set up JV wind power development companies with foreign partners including HydroTasmania Roaring 40S, American AES and China Wind Power Group Co., Ltd. Besides, the company also work with the United Nation's Executive Board on CDM project development.

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## **Sinovel Windtec Co., Ltd.**

华锐风电科技有限公司



[www.sinovel.com](http://www.sinovel.com)

A subsidiary company of Dalian Heavy Industry, Sinovel started its wind business in 2004 and became one of the leading turbine manufacturers in China. The company has annual production capacity of 2000 sets of 1.5 MW wind turbines and has so far installed 4,105MW of products.

The company produces 1.5MW turbines under a license form Furländer of Germany, and has a strategic relationship with American Super Conductor (AMSC) including sourcing and joint design development contract for 3MW and 5MW turbines. They also have strategic relationships with Sinoma for blades, with SKF for bearings and with Romax for the 3MW gearbox.

## **Guodian United Power Technology Co. Ltd.**

国电联合动力技术有限公司



[www.gdupc.com.cn](http://www.gdupc.com.cn)

Established in 2007, Guodian United Power is a subsidiary of China Guodian Corporation engaged in R&D, design, manufacturing of wind turbine, and providing technological service on operation and maintenance of wind farms. The company has developed its own 1.5 MW turbines and has annual production capacity of 2000 sets. It is researching and developing 3-5 MW turbines that could be used for offshore wind farm.

## **Beijing Jikedian Renewable Energy Development Centre**

北京计科电可再生能源技术开发中心有限公司



[www.bjjkd.com](http://www.bjjkd.com)

With the support from NDRC and Bureau of High Technology of Chinese Academy of Sciences (CAS), JKD is mainly engaged in R&D of renewable energy technologies, application consultation and professional training service in the fields of wind, photovoltaic, wind/ photovoltaic hybrid, biomass, fuel cell, solar thermal power system etc.

In the past 10 years, JKD has led a lot of national scientific and technological projects, international cooperation projects and large-scale engineering projects. It has nurtured good relationship with Chinese government departments such as NDRC, MOST, CAS, MOF and provincial DRCs, Chinese renewable energy companies and associations.

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