

Wind as a modern energy source: the Vestas view

Wind is an energy source which can help the world's largest and fastest growing economies to reduce their dependence on fossil fuels and on imported energy.

Over the past couple of years, Vestas, the world's largest wind turbine manufacturer, has experienced tremendous growth, and the company vision of wind alongside oil and gas is gaining momentum. Wind power has developed from being an alternative form of energy to its status as a large-scale reliable source of energy integrated in the energy mix along with oil and gas. It's fair to say: wind energy has become an important player in the world's energy markets.

Wind power is today a mainstream, high-tech, competitive and extremely reliable source of energy. It is a clean and independent generating technology which can be installed very quickly. The price of wind energy is both predictable and competitive; in comparison with other renewable sources, wind energy is the most

mature and competitive technology. Vestas calls wind power modern energy.

No waste of water

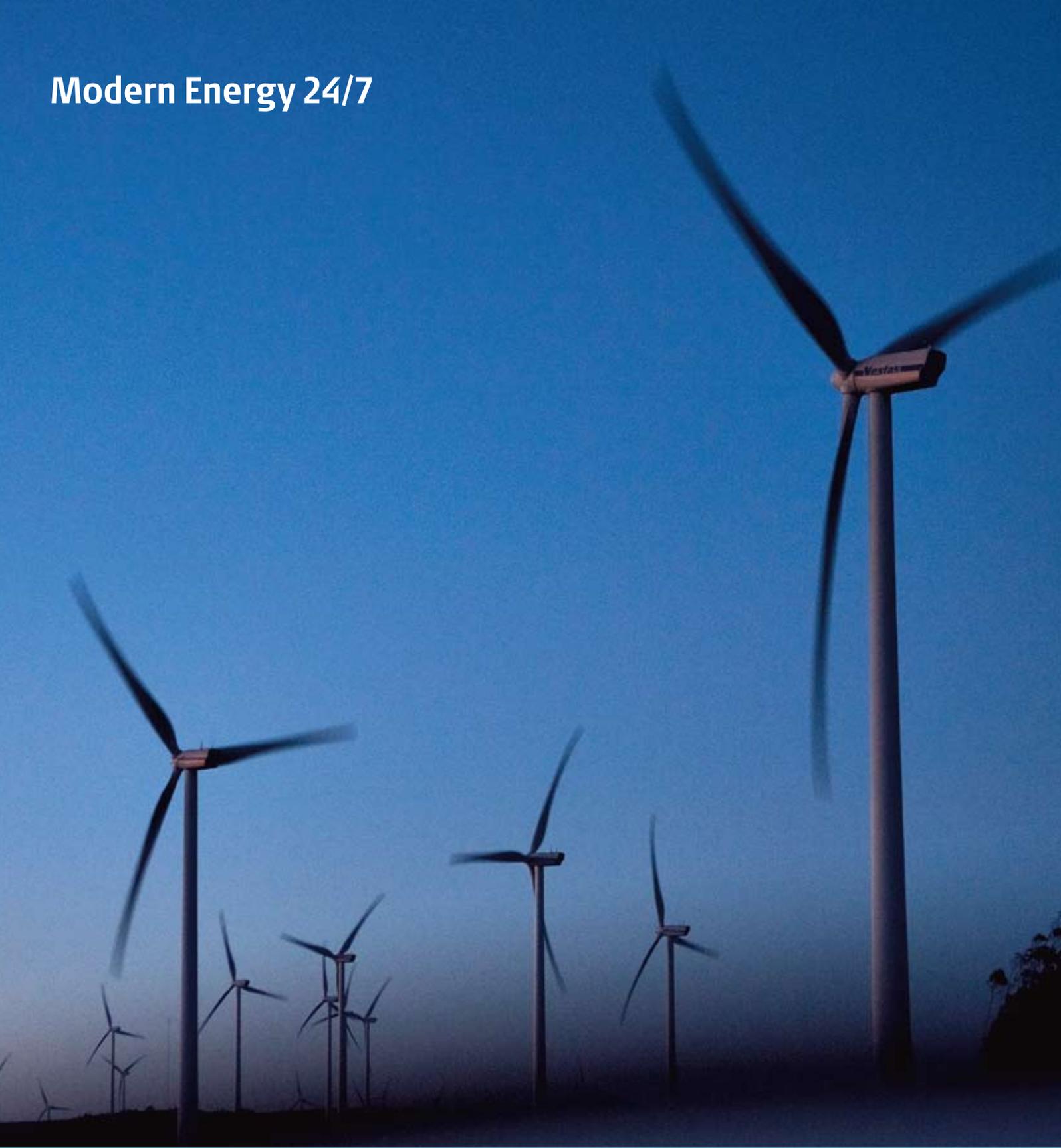
A report by UN's Intergovernmental Panel on Climate Change (IPCC), published in 2007, concluded that "global warming will hit through water", and that some of the major challenges in relation to dealing with global warming are linked to the development and administration of the water resources. Therefore, it is particularly relevant to focus on the global supplies of clean drinking water, which, within a relatively short space of time, may become very scarce.

According to the European Environment Agency, the total European electricity consumption of households and industry can be illustrated by an average per capita

consumption of five megawatt hours of electricity per year. A report by the Danish Hydrological Institute commissioned by Vestas showed that in order to produce those five megawatt hours, natural gas would require 5,000 litres of water, coal 10,000 litres, nuclear production 12,500 litres, oil 20,000 litres, hydropower would require 340,000 litres and biofuel 890,000 litres – all to produce the average electricity requirement of each European.

Wind power, on the other hand, requires a mere five litres to produce 5 megawatt hours of electricity. What is more, wind turbines do not use even a drop of water when generating electricity. Thus, it seems evident that increasing the proportion of wind power in a country's energy mix would result in reductions of water consumption.

Modern Energy 24/7



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Power your life - Vestas offers you challenging, global career opportunities in cleantech. Our 28% market share makes us the world leader in modern energy. We have installed 33,500 wind turbines worldwide and we reduce CO₂ emissions by 31 million tons per year. In 2008, our 14,607 employees will welcome 2,500 new colleagues. Care to join us?

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“Wind power as a single energy source will account for 15% of the CO2 reduction requirement for 2020 set forth by the United Nations Framework Convention on Climate Change (UNFCCC)”

The vision of wind is realistic

Taking into account the clear advantages of wind energy as opposed to conventional fossil fuels and other renewables, Vestas believes that there is vast wind energy market potential to be exploited, and sound reasons to believe that wind power will be integrated into most countries' energy generation mix on par with other traditional energy technologies.

However, a great many crucial, wide-ranging – and modern – decisions will have to be made, if wind energy is to fulfill the leading role in energy supply that it has the potential to take on as early as 2020.

Vestas' goal is that at least 10% of global electricity consumption should be based on wind energy by 2020. Today, the global share of wind energy is less than 1% of the

worldwide electricity demand. This means that the 75,000 MW of wind power that had been installed in 2006 is to be increased to no less than at least 1,000,000 MW in 2020. This would translate into an annual growth rate of approximately 20%. In this regard, it is worth noting that the industry has actually grown by 29 per cent on average over the past 10 years, so the vision is in no way unrealistic.

If Vestas' goal is reached, wind power as a single energy source will account for 15 % of the CO2 reduction requirement for 2020 set forth by the United Nations Framework Convention on Climate Change (UNFCCC).

Number one in modern energy

At the end of 2007, Vestas had a market share of 23% – in a market with an expected growth rate of at least 15-20% a year over the next decade.

Vestas has built production facilities in more than 12 countries and is currently expanding and opening up new production facilities in China, Spain and USA in order to be close to customers and to satisfy market needs. The company has installed over 33,500 wind turbines in 63 countries on five continents. Over the last 25 years, the capacity of Vestas wind turbines has grown 100-fold, from 30 kW to 3 MW. A third of all wind turbines installed worldwide are Vestas turbines.

Based on the ongoing global developments that may directly or indirectly affect the wind market, Vestas does foresee a significant strengthening of the wind energy sector and Vestas being the number one company in modern energy in years to come.

For further information, please visit: www.vestas.com